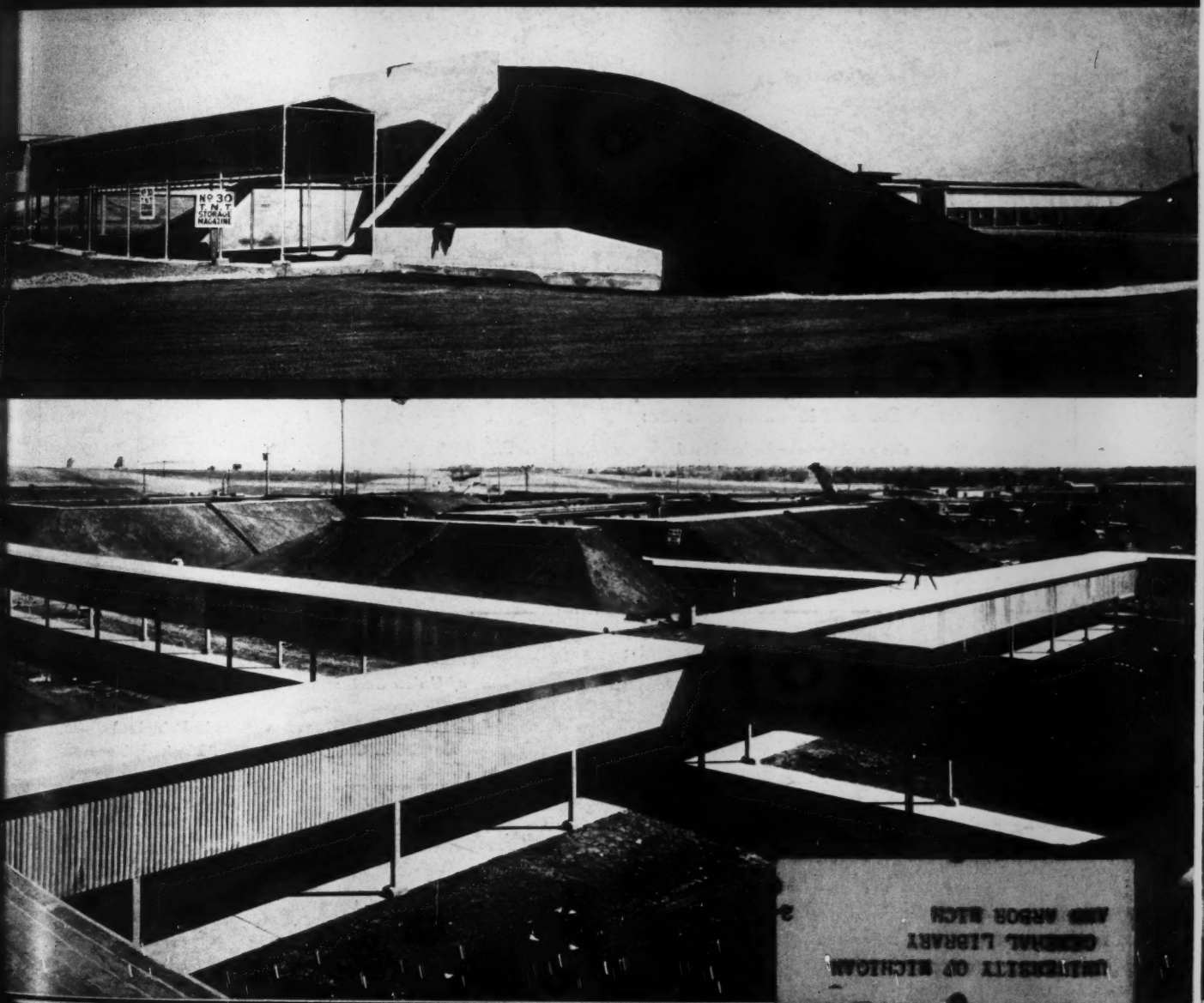
ENGINEERING NEWS-RECORD

Typical storage magazines and passageways at Denver Ordnance Plant, opened Oct. 25.



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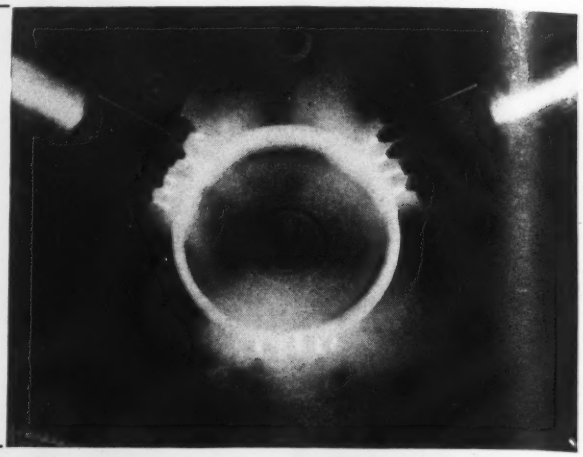
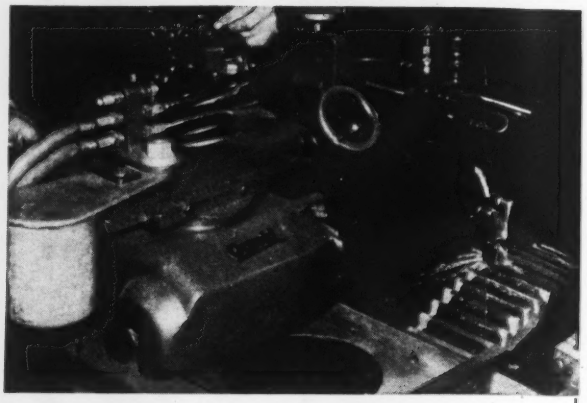
OXY-ACETYLENE FLAME-HARDENING makes wearing parts last longer . . .

1. What it is and how it's done

Oxy-acetylene flame-hardening imparts a hard case to wearing parts to make them last longer. This is done by heating the area to be hardened with oxy-acetylene flames, and then quenching with water or oil. Commonly used steels and high-tensile cast iron can be flame-hardened successfully. Small areas can be hardened by the "spot" method, using a hand welding blowpipe. Larger areas are usually hardened by mechanized equipment, using the "progressive" method or—as shown in the illustration at the right—the "spinning" method.



Unretouched view of etched cross section of a flame-hardened gear tooth.



2. What its advantages are

In many cases, oxy-acetylene flame-hardening is not only the best method, but the *only* practical method. Some of its advantages are:

- Parts of any size or shape can be hardened.
- There is no appreciable distortion.
- Toughness of the core is unaffected.
- Chemical composition of the metal is unchanged.
- Penetration can be closely controlled.
- The hardened area does not spall off.
- It permits use of cheaper base metals.
- Only a moderate equipment investment is required.

3. Typical parts being hardened

In the illustration above, Oxweld flame-hardening equipment is being used to impart a hard case to the teeth of a crane gear—at only the points where wear occurs. A few of the many other parts which are hardened—or fabricated—with the help of this oxy-acetylene process are:

Sprockets	Cams	Piston Rods
Dies	Crane Wheels	Pump Plungers
Sheave Wheels	Bearing Raceways	Crossheads
Shear Blades	Shafts	Saw Blades

Linde can supply the gases, the apparatus, and help in using flame-hardening. If you are interested in giving longer life to wearing parts, *talk it over with Linde!*

THE LINDE AIR PRODUCTS COMPANY
Unit of Union Carbide and Carbon Corporation
UCC
General Office: New York, N. Y. Offices in Principal Cities
In Canada: Dominion Oxygen Company, Limited, Toronto

LINDE OXYGEN . . . PREST-O-LITE ACETYLENE . . . UNION CARBIDE
OXWELD, PUROX, PREST-O-WELD APPARATUS . . . OXWELD SUPPLIES

The words "Linde," "Prest-O-Lite," "Union," "Oxweld," "Purox," and "Prest-O-Weld" are trade-marks of Units of Union Carbide and Carbon Corporation.

The Week In Engineering and Construction

ENGINEERING NEWS-RECORD • NOVEMBER 13, 1941

Revised defense road bill sent to President by Congress

Congress writes a compromise between its views and those of the President into a new bill to provide funds for access roads and work on the defense network.

A new version of the long-considered bill to provide additional funds for camp access roads and expanded work on the strategic highway network was approved by both houses of Congress last week and sent to the President. A similar bill, passed last summer, was vetoed by the President because he disapproved of the inclusion of $125,000,000 for construction of roads on the strategic network, to be distributed to the states in accordance with the regular federal-aid formula.

The new bill cuts the amount for strategic roads to $50,000,000 and provides that half of it shall be distributed according to the usual formula and the rest shall be allotted by the Federal Works Administrator to those states where the need is greatest.

To encourage the states to concentrate their road programs on projects included in the strategic network, the bill provides that all funds spent on network roads—including the present appropriation and unexpended balances of regular federal-aid appropriation — need be matched by the states only in a proportion of one to three rather than the usual dollar for dollar arrangement.

For construction of access roads to military camps and defense industries, the bill authorizes $150,000,000. This need not be matched by the states and no formula is set up for its distribution except that "due consideration" shall be given to states which have already expended their own funds on access roads.

For federal construction of flight strips near highways, the bill authorizes expenditure of $10,000,000 unmatched by the states. Another $10,000,000, to be matched equally by the states, may be spent on advance engineering for express-highways and other projects to be undertaken after the war.

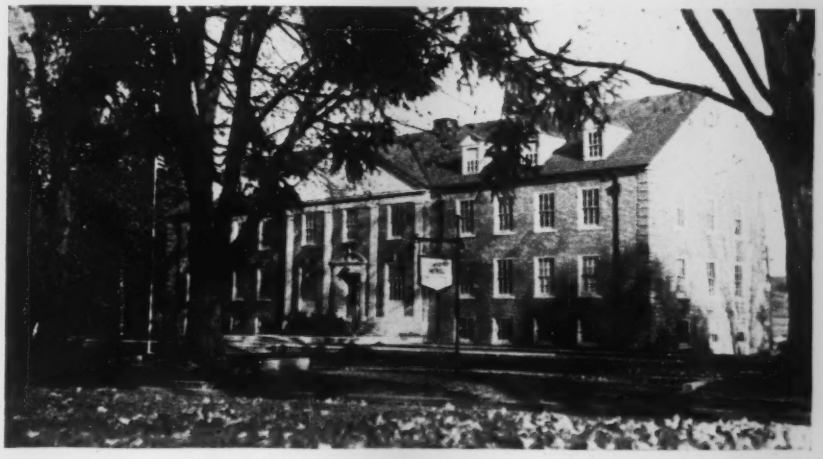
In addition to a number of technical changes in the federal highway act, the new measure authorizes expenditure of federal-aid funds on construction of parking facilities adjacent to the strategic network provided that the states agree to forbid on-the-road parking in the area served.

No specific funds for repair of roads damaged by army maneuvers are included in the bill, but the Public Roads Administration is authorized to receive and adjudicate claims from the states.

SPAB ends last hope for East Texas pipeline

Last September's tentative rejection of the proposed oil pipeline from Texas to New Jersey was made final this week by the Supply, Priorities and Allocations Board, which decided that the more than 660,000 tons of steel required could not be spared. Last September, SPAB said that the pipeline could not be built of steel plate, which is badly needed for ships, but left the possibility that extruded seamless tubing might be used. This week the board eliminated that final possibility.

SPAB made it clear that its action is not to be taken as a rejection of the idea of building any pipelines at all, but applies only to this particular project. It pointed out that a number of smaller pipeline projects improving the present network might be advisable.



Ohio Department of Highways dedicates new building

A new $75,000 building designed to house the staff of division engineer Charles A. Ferguson of the Ohio Department of Highways at Marietta, and to provide garage facilities for motor equipment was dedicated on Nov. 13. In conjunction with the facilities outlined, the building also will accommodate a sub-station of the Ohio Highway Patrol. Constructed of brick and stone, the building as shown above, is one of the most attractive highway structures to be completed in recent years.

On the same date that this building was dedicated, the highway department celebrated completion of 2.885 miles of new highway on State Route No. 7, extending west from the corporate limits of Marietta. The new highway, a relocation project costing $547,000, was necessary to avoid frequent slides that tied up the old location near the bank of the Ohio River. The highway at this point is now located at heights varying from 50 to 75 ft. above the old road. L. T. Sisler & Sons and Merry & Sisler of Marietta were general contractors.

Union order ends strikes on San Diego Navy job

Striking members of AFL building trades employed on defense projects of the Navy in the area around San Diego, Calif., were ordered back to work by their local leaders on Nov. 11. No explanation of the sudden change of front had been made when this issue closed.

In support of its demands for pay increases, the AFL Building Construction Trades Council of San Diego, Calif., on Nov. 10 called a general strike of AFL building trades on $20,000,000 of defense projects in the San Diego area effective at 8 a.m. Nov. 11. Last Thursday AFL building trades went on strike on three Navy jobs where the pay increases had been under discussion following the Navy's refusal to meet all the union demands.

The Navy's response to the strike call was an order to the men involved to return to work by 8 a.m. Nov. 11 or forfeit their jobs, the Navy taking the position the strike was a violation of the stabilization agreement signed with the AFL building trades in July.

Reports from Washington state that AFL leaders there held the strike to be in violation of the stabilization agreement and had ordered the unions involved to go back to work, but receipt of such orders were denied by the local leaders in San Diego.

A survey indicates that the proposed walkout would have tied up over $20,000,000 worth of construction at ten projects and would have involved 3,500 workmen, including carpenters, iron workers, plumbers, cement finishers and employees in several other categories.

The strike of 1,435 A.F.L. members, which prompted the Navy's ultimatum, involved construction on a marine barracks at Camp Elliott, about 10 miles from San Diego, and on a marine rifle range and navy training station. Cost of these projects is estimated at $10,000,000. In addition, work at a big graving dock at the destroyer base at San Diego has been delayed by what the Navy terms a jurisdictional strike.

Wolf Creek Dam access road is tough job

Engineers on survey must work from ropes with safety lines on their instruments on some sections of the south side access road to Wolf Creek Dam on the Cumberland River in southwestern Kentucky. Grading for the first four miles from Desda, Ky., has required 180,000 cu.yd. of unclassified excavation, while the last 3,000 ft. required handling 160,000 cu.yd. Ruling grade is 6 percent with the maximum curve 15 deg.; many places the maximum curve is required simultaneously with maximum grade. Much of the work is sidehill cut, but 50-ft. cuts and fills are common.

Roadway width is 20 ft., surfaced with 8 in. of water-bound macadam topped with 1 in. of bituminous material. Four-ft. wide shoulders on each side will be built up of selected material. Much of the material for the dam, including concrete aggregates for 1,250,000 cu.yd., will be hauled over this road.

Codell Construction Co., Inc., Winchester, Ky., Scott Talbott superintendent, holds a $361,000 contract for the road work. The work is being done for the U. S. Engineer department, Nashville district, under the direction of Lt. Col. O. E. Walsh, district engineer, and Clifton P. Carter, resident engineer.

S. A. Healy Co., Chicago, contractor for the $16,000,000 dam, is reported to be assembling two cableways to operate from a single headtower for placing the concrete at the dam, where little work is underway as yet.

Trouble on building work seen in welders activity

Efforts of AFL welders to set up an international union of their own are considered likely to have repercussions in the building field, as difficulty arises because welders are not recognized by the AFL as a separate craft. Welders are divided among different unions, depending upon the type of structure they are welding. Welders in production plants, who comprise some two-thirds of the welders, are split among unions belonging to the metal trades department of the AFL, while construction welders are divided among several building trades unions—principally the ironworkers, plumbers, and steamfitters, but also including the electricians and boilermakers.

The issue has come to a head principally among the production welders. Over the past couple of weeks their independent welders union has called strikes in shipyards and aircraft plants in an effort to force the AFL to grant the independent union a charter.

Last week, West Coast construction jobs employing welders were affected by the situation when the independent called out its members on those jobs—men who held membership in both the independent and an AFL union. This strike was called off within a few hours, but many of the men are still out since they were expelled from their AFL unions for violation of contract and have not been allowed to return to work.

At the urging of the labor division of the Office of Production Management most of the production welders have now gone back to work. A conference has been called for the next week, to include metal trades department officials, representatives of the welders, and Sidney Hillman of OPM. At this conference Hillman will propose that the metal trades department adopt a single card which would be recognized by all its component unions—in effect converting the department into an industrial union.

Such a solution would doubtless solve the grievances of the production welders, and the construction welders might remain satisfied with the status quo. Few observers expect, however, that Mr. Hillman's suggestion will be adopted.

If the AFL grants the welders a charter, it will raise a whole new series of vexing jurisdictional questions for construction men. A pipe welder, say, would have to loaf while steamfitters or plumbers put his work in position and confine himself to actual welding.

Alternatively, if a charter is refused, there is always a danger the welders will seek a charter from the CIO, which would precipitate a bitter organizing campaign and AFL-CIO jurisdictional struggles.

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Right to close railroad underpass upheld by court

The North Carolina Supreme Court ruled last week that the state highway commission has the right to abandon and order closed a railroad underpass in order to promote safety by elimination of dangerous curves and approaches. The ruling was handed down in a suit in which a group of citizens of Burke County, N. C., sought to prevent abandonment of a Southern Railway underpass.

According to the court, "roads are laid out, built and maintained primarily for public convenience; but apart from the economies they promote, there is no more imperative consideration in their construction and maintenance than the public safety. The closing of the underpass in such circumstances is but a resumption on the part of the defendant of the control and use of its own property which invades no right of the plaintiffs," declared the court.

• • •

More transmission lines for Bonneville requested

President Roosevelt, last week, sent a special request to Congress through Speaker Rayburn of the House for a $30,000,000 appropriation for construction of additional transmission facilities at Bonneville Dam.

"A critical power shortage in this area is now imminent, and the existing transmission facilities of the Bonneville Power Administration are being used to full capacity without any reserve," was stated as the reason for his request.

• • •

Newport, R. I., receives $625,000 reservoir grant

A federal grant totaling $625,000 for construction of a water supply reservoir at Lawton's Valley and a distribution line from that point to Newport, R. I., has been authorized. The city's original request was for $940,000, but the engineers of the Federal Works Agency revised the plans to provide for a lower dam and changes in the distribution mains.

• • •

Androscoggin pollution declared health menace

A report has been submitted by Edmund C. Garthe, an associate engineer of the federal public health office, which says that pollution in the Androscoggin River is a health menace, and officials of Maine and New Hampshire have been notified that an interstate compact or agreement must be reached between the two states in an effort to eliminate pollution of the river.

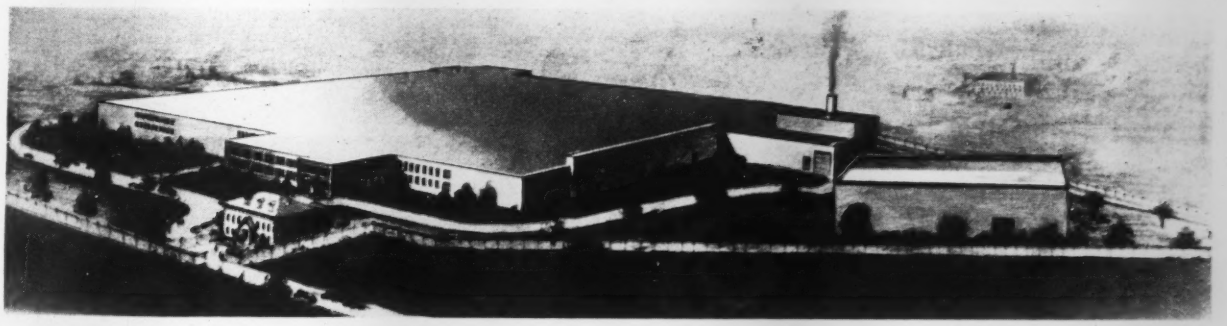
The sewage load carried is equivalent to that of a city of 120,000 persons, while the industrial waste load is equivalent to that of a municipality of 1,500,000 persons, states the report.

Builders want relief from housing restrictions

Opposition to the SPAB and OPM orders limiting priorities to defense construction has gathered force from several directions. It was voiced by several speakers at the construction industry conferences in Washington last week as well as at the annual convention of the National Association of Real Estate Boards in Detroit. The New York Building Congress is also formulating a protest.

The principal objection is to the $6,000 top placed on defense housing and to the order that confines critical material priorities to specific defense areas. In several of the cases the protests are based on the idea that "stop building" orders have been issued, although Donald Nelson, SPAB director, emphasized at the Washington meetings last week that this was erroneous. He said that if supplies of critical materials are available for a non-defense project, the construction can go ahead. Priorities, however, are available only to defense jobs.

Both the Association of Real Estate Boards and the New York Building Congress ask that the $6,000 top be altered, either by raising it to permit more expensive houses to be built or by eliminating it in favor of a quantitative limit on the amount of critical materials that will be granted priority for defense housing. The latter scheme, it is contended, would enable more expensive houses to be built which would use less critical materials than a $6,000 house.



Allis-Chalmers builds first blackout plant in Milwaukee

Ground has been broken for the new $9,000,000 aircraft supercharger factory for the Allis-Chalmers Mfg. Co., Milwaukee, which will be the first blackout plant in the Wisconsin industrial area. The main building will be a one-story structure, 500 x 800 ft. in area, windowless, air-conditioned and fluorescent lighted. Completion is expected in 6 months, after which 3,000 persons will be employed turning out turbo-superchargers that will enable bomber planes to travel in the stratosphere.

Built entirely around planned production operations, the new factory will be of purely functional design, according to Carl E. Meyer, head of the Allis-Chalmers architectural staff. Most modern provisions will contribute to production efficiency and to ideal working conditions. Air-conditioning will require four refrigerating units having a combined capacity of 2,650 tons daily.

In the large test rooms, where all finished materials will undergo strict examination, complete acoustical control will be provided, while the entire building will be specially insulated. Other facilities will include a fully-equipped laboratory for research and testing of raw materials.

Only the 50x200-ft. area devoted to offices and rest rooms will have windows. The production area will be fluorescent lighted. Protection against military attack includes location of vital power lines underground, and the electrical substation will be completely enclosed and protected against the effect of possible bombing.

Adjacent to the main building will be a forge plant, 80x200 ft., as well as a terminal building already under construction. Through the latter all materials required in the different manufacturing activities will be routed to the plant.

Protecting a Hos

Sanborn photos

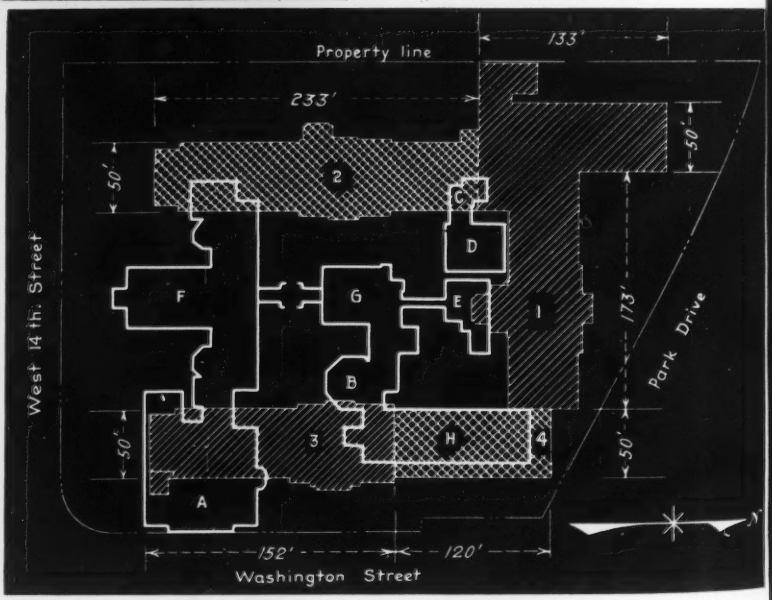
Excavation totaling 35,000 cu.yd. is carried to rock for Unit 1, as shown above. At center shoring and underpinning is in place to protect old laundry and power house. Note tarpaulins protecting bank. Present nurses home is at extreme left.

Work advanced rapidly on the 233-ft. long, seven-story Unit 2 at left above, which is of reinforced-concrete construction with brick facing. Old building for ward patients, and clinic and accident wards are in right foreground.

Three units of a new four-unit group of buildings for the Delaware Hospital, Wilmington, Del., were constructed recently while the old hospital was kept in continuous service during every stage of the work. As shown by the drawing below, this development, which calls for reinforced-concrete buildings with brick and limestone exterior walls, is being built on much of the original site occupied by the scattered structures constituting the old hospital group.

Chief construction problem was created by the excavation required around the old power plant, which is shown as Building D on the drawing. This excavation was necessary to make room for the new main building or Unit 1. Since at no time could operation of the power plant be interrupted, the first step in the new work was to incorporate a power plant in the new main building, and then provide piping connections between the new and old buildings so that service could continue during the old power plant's demolition. In effect, a double source of power to all the old structures was arranged. Then, at a prearranged time, the new plant went into service without a power interruption, and the old plant was demolished.

Excavation required for Unit 1 was very close to the existing power plant's walls and on the site of the plant's masonry smokestack. As a result, it was first necessary to erect a temporary steel stack on another side of the building before demolishing the old stack. Excavation of tough Brandywine granite rock over the entire area for Unit 1 was necessary to provide space for the basements.



Plan shows location of new buildings (lighter lines) and old structures (solid lines and alphabetical designation). Unit 1 of new work provides administrative quarters, private patient wards, operating rooms, power plant, laundry, kitchen and central services; Unit 2, wards, clinics, and accident department; and Unit 3, nurses home and nursing school. Unit 4 is a contemplated hospital unit or nurses home. Original buildings are designated as follows: Building A, administration; B, dining room; C, garage; D, power plant; E, laundry; F, wards; G, nursing school; and H, nurses home.

ospital services big problem in new construction

The depth of this work varied from about 2 to 10 ft. with excavation for the footings being deeper, depending upon the thickness of the footing.

The problem of supporting the power plant and laundry buildings during the blasting and excavation work was of prime importance. Thus, the walls of both buildings were underpinned down to rock in the early stages of the excavation. As this work advanced installation of shoring along the earth bank above the rock was also necessary, since the existing grade level along the front of the new building or that nearest the old powerhouse is about three stories higher than the existing grade along the rear of the new building. This shoring was kept in place until the structural framework for the new structure had been completed up to the first-floor level. In addition a tarpaulin covering was placed over the bank, which was of clay at the top, to aid in preventing erosion and slippage of the bank.

With the new power plant in operation and the new laundry and kitchens ready, the old laundry or Building E was demolished and Unit 1 extended to its full size. With completion of Unit 1 a centralized kitchen and dining room service for the hospital staff was available, as were the administrative quarters, garage, power plant and laundry. Completion of this unit also permitted removal of the old dining rooms (B on plan). The private patients and administrative offices, then located in old Unit A, were next removed to their new quarters in Unit 1. Meanwhile the wing of Building F, which projected into the space to be occupied by Unit 2 of the new buildings, was removed.

When Unit 2 had been completed up to the second story, a temporary bridge was built connecting this structure with Building G to permit transportation of patients from their old quarters to rooms in the new main building. Upon completion of Unit 2, Building A was demolished to make room for Unit 3 of the new work. Old Buildings F and G remain standing at the present time, as they are used for the storage of building materials and supplies. Retention of these two structures for storage purposes proved to be a very fortunate move, as it was possible to deliver all cabinets, sterilizers, plumbing fixtures, and similar equipment months before it was required for Unit 1. Thus, many delays were avoided that would have occurred on account of defense priorities if deliveries had been postponed until the materials and equipment could be taken into the new building.

Inasmuch as Building H or the nurses home of the old institution will remain temporarily as part of the new set-up, it was necessary to provide access between Unit 3 and the rest of the hospital proper. This was accomplished by construction of a tunneled passageway 13 ft. below foundations for that part of the old nurses home without basement. The tunnel extends about half the building's length and then ends in that portion of the structure that has a basement.

The first of the three new units was begun in June, 1939, and all three will be completed by January 1942. Units 1, 2 and 3 together are costing $3,392,000 and they provide a total of 3,976,000 cu. ft. of space. Cost per cubic foot, excluding architect's fee and land, was 85c, divided as follows: heating and ventilating, 11.5c.; electric facilities, 5.3c.; plumbing, 7.5c.; elevators, 3.0c.; and construction, 57.7c.

Massena & duPont, Wilmington, Del., are architects for the project, Turner Construction Co., Philadelphia, general contractor, Louis H. Doane, Wilmington, Del., structural engineer, and Jarros, Baum & Bolles, New York, engineers for the mechanical work.

Sanborn photo

Unit 3 under construction is shown in right foreground. Present nurses home, which is to be left temporarily as part of new development, is at right center. Completed Units 1 and 2 may be seen in center and left backgrounds.

Wm. M. Rittase photo

Looking southwest at completed Unit 1. Power house is located in basement and sub-basement at right, while electric service facilities are also on sub-basement floor. Remainder of basement proper provides space for laundry facilities. Ground floor, which does not have an exit at grade level, is given over to kitchen and service rooms; first floor to executive quarters; second floor to laboratories; floors 3 to 6, inclusive, to private wards, and floors 7 and 8 to operating rooms.

Few bond issues approved at November elections

Bond issues totaling only $6,290,000 were approved at the November elections out of $82,087,000 submitted to the voters, according to a survey made by *The Herald-Tribune*, New York. The largest single rejection was the $66,500,000 of revenue bonds at San Francisco for purchase of the power distribution system of the Pacific Gas and Electric Co. or construction of a duplicate system. The bonds approved were chiefly small issues of school districts.

This is the eighth time that San Francisco has turned down a proposal to go into the business of retailing the power developed at the power plants of its Hetch-Hetchy water-supply system. At present it sells that power to the P.G. & E., but in April, 1940, the U. S. Supreme Court declared the contract under which the power is sold to be in violation of the Raker Act under which the federal government authorized the city to use public lands for its water-supply system.

Petitions asking Congress to amend the Raker Act to permit the city to sell the power wholesale are now being circulated.

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Drought causes severe power shortage in Georgia

Georgia Power Co. officials state that their reservoirs at Lake Rabun, Lake Burton, Jackson Lake and Barlett's Ferry, on the Chattahoochee River, now have in storage only 23,600,000 kwh. of electricity, whereas their capacity is 149,300,000 kwh., which means these four power reservoirs in Georgia are running with only 17 percent of their capacity power in storage.

Atlanta has been blacked out for several nights in an effort to eliminate all non-essential lights to permit all possible savings of electricity for defense use. As noted on the following page, a a heavy rainfall over a large part of the southeastern states last week had postponed an OPM plan to give official status to the voluntary curtailment of non-defense power use.

• • •

Granby Dam construction delayed a second time

Construction of Granby Dam, key unit of the $55,000,000 Colorado-Big Thompson power and irrigation project, was delayed last week for the second time when the U. S. Bureau of Reclamation at Denver, rejected all bids on the dam proper because they were above estimates of government engineers.

Bids on the dam and an outlet tunnel were opened on Sept. 5, and a low bid of $5,247,555 was rejected by the bureau. When bidding was reopened last month, the bureau called for separate bids on the dam and on the outlet tunnel.

Four Los Angeles contractors submitted a bid of $5,117,637 for construction of the dam, and Platt Rogers Construction Co. of Pueblo, Colo., submitted a bid of $283,180 on the tunnel.

S. O. Harper, chief engineer of the Bureau of Reclamation, announced that the contract had been let to the Platt Rogers Construction Co. for the tunnel, at the same time the announcement was made that the bids for the dam had been rejected. It is understood that construction will be started immediately on the outlet tunnel which will be 1,490 ft. long, and 11½ ft. in diameter; concrete lined.

It is expected that bids for the dam will not be reopened until early next year.

Chris J. Sherlock to be new A.R.B.A. president

Announcement has just been made from the national headquarters of the American Road Builders Association, Washington, D. C., that Chris J. Sherlock, director of the Alabama State Highway Department, has been nominated as president of the A.R.B.A.

Mr. Sherlock, a graduate of the Georgia School of Technology in 1920, was connected with the Georgia Highway Board until 1922, when he accepted a position with the Alabama Highway Department as draftsman. He was soon promoted to the head of the drafting department, and has served as assistant chief engineer, chief engineer, and was appointed highway director in February 1939. He has served as a member of the board of directors of A.R.B.A.

First year operation of Pennsylvania Turnpike

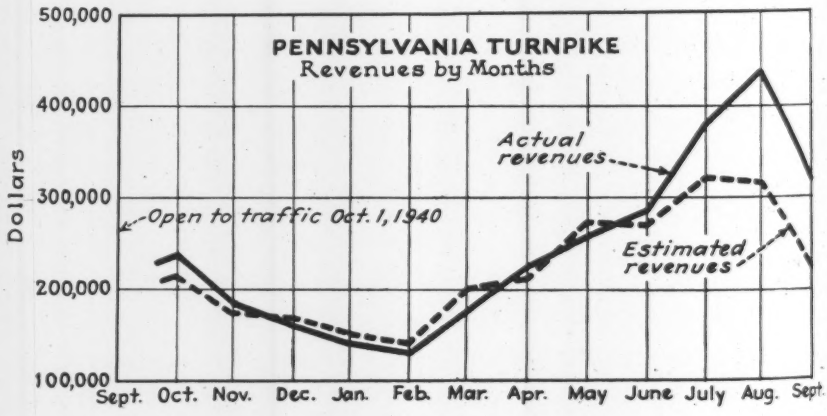
Gross revenue from operation of the Pennsylvania Turnpike for its first full year, ending Sept. 30, 1941, was $2,949,383. Of this amount $2,729,928 was paid for passage of 2,473,817 motor vehicles of all classes, which is $60,000 in excess of the engineers' estimates. The rest of the income was largely from motor fuel and restaurant concessions. The original traffic estimates indicated that the toll return from the Turnpike would be obtained about equally from passenger cars and trucks. Actually $1,796,000 of the $2,730,000 toll income, nearly two-thirds, has come from passenger cars which have paid an average of 81c for passage. Trucks paid an average of $3.50 each. Crossing the full 160 miles of the Turnpike costs from $1.50 for passenger cars to $10 for the largest trucks.

Truck traffic on the Turnpike has increased gradually, September truck movement showing a total of 932 vehicles daily against 871 for August and 673 for the entire year. I.C.C. and other regulations are believed to have slowed the start of trucks operating over the highway.

Cost of operation of the Turnpike for the first year was $947,000, compared to an original estimate of $566,000. However, the early estimate was for 11-ft. instead of 12-ft. lanes and in many cases construction differed from that contemplated at the time the estimate was made. The first winter's operation could be normally expected to cost more than after experience is attained. Estimates of future operating costs are not available but it is believed that they may be somewhat over $700,000 annually.

The table below shows the number of vehicles of each toll classification using the Turnpike in its first full year.

Motorcycle	3,275
Passenger car	2,204,638
Truck, to 7,000 lbs	26,128
Truck, 7,000-15,000 lbs	51,612
Heavy truck,	
15,000-18,000 lbs	16,777
18,000-22,000 lbs	15,138
22,000-26,000 lbs	24,630
Semi-trailer truck,	
26,000-30,000 lbs	9,071
30,000-39,000 lbs	101,376
Full-trailer truck,	
39,000-62,000 lbs	183
Bus, (to 12 passengers)	1,092
Bus, (13 pass. or over)	19,176
Total for 1st year	2,473,817



Supreme Court backs levy on defense materials

Fee contractors for the War Department are not, in a strict sense, agents of the federal government, and state sales and use taxes applicable to the work are legally collectible, the U. S. Supreme Court ruled this week. Reversing a decision of the Alabama Supreme Court, the justices point out that the major point at issue is whether the government or the contractor is the actual purchaser of supplies for the project. The Alabama tax in question is required to be collected by the seller of construction materials—in this case lumber—but is imposed on the purchaser.

Despite the close control exercised by the government over purchases made by fee contractors, the court pointed out that a clause in the fee contract specifically requires that the contractor "make all purchase contracts in his own name, and not bind or purport to bind the government or the contracting officer thereunder." This, it was held, is conclusive evidence that the contractor is the actual purchaser. The tax therefore is not a tax on the government and may properly be imposed.

This decision is unlikely to have any immediate financial effect on government contractors. It is in reality an issue between the state and federal treasuries. The regular form of fee contract specifically recognizes any state taxes which may be imposed as being part of the cost of the work. Only case in which difficulty might arise is if states attempt to go back and collect on contracts which have been closed out. Contractors might then become involved in vexatious claims procedure to get reimbursement.

Some contractors are afraid that the decision may lead the government to take over the entire purchasing function on fee contracts in the future in order to avoid the state taxes. This would be seen as another step towards elimination of the contractor. Alternatively, of course, the contract might simply be re-worded to read—the contractor is explicitly the agent of the federal government when he buys materials.

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Boston sewage projects advanced by bill passage

Governor Saltonstall of Massachusetts has signed a bill authorizing improvements in the Boston metropolitan sewerage system to represent an estimated outlay of $19,610,000 in five projects, subject to a minimum grant of 25 percent of the cost by the federal government. The state has filed an application with the Defense Public Works division of the FWA at Boston for federal funds for the above objective. The application is under consideration and the findings will be forwarded to Washington when these are determined.

The projects include: (1) a sewage treatment plant and works at Nut Island, Quincy, including facilities for sludge disposal from the south metropolitan district, $3,800,000; (2) an extension of the north metropolitan relief sewer from East Boston to Deer Island, $6,935,000; (3) a storm overflow conduit along Alewife Brook in Cambridge, Medford, Somerville, Arlington and Belmont, $875,000; (4) a storm overflow conduit along the south side of the Charles River to relieve the Charles River Basin, $6,151,000; and (5) a corresponding undertaking along the north side of that river, $1,840,000.

The work in connection with these projects, including borrowing of funds by the state, is to be carried out by June 30, 1945. The act provides for enlargement of the Metropolitan District Water Supply Commission to include the director and chief engineer of the sewerage division of the metropolitan district commission and the director and chief sanitary engineer of the division of sanitary engineering of the department of public health. The first-named commission is to have charge of the projects, and is granted an allowance for making borings, surveys, plans and specifications, pending receipt of federal funds. The state may issue bonds to finance its part of the cost.

Rains postpone rationing of power in Southeast

A 1-in. rainfall last week throughout the Tennessee Valley has postponed for at least a week the imposition of a drastic 30-percent reduction on non-essential power use throughout most of the Southeast. The curtailment of power use had been ordered by OPM to avert a power shortage in the TVA and surrounding area, which would have seriously crippled aluminum production and other essential defense industries.

The shortage arose from the long-continuing drought in the Tennessee Valley, where a 21.7-in. deficiency of rainfall has accumulated since October, 1937. Two-thirds of this deficiency was created in the past year and more than 7 in. of it since March, 1941.

First step in meeting the shortage was to pool the power resources of Georgia, Alabama, Tennessee and parts of Mississippi, Florida, and the Carolinas. For this unified area, a power schedule was drawn up based on maximum utilization of steam and run-of-river hydro generators, plus gradual drawdown of storage reservoirs in the pool area to exhaust them all more or less simultaneously on Dec. 15. This rate of drawdown, of course, represented something of a risk, but the Dec. 15 date was adopted on the grounds that in 15 of the past 20 years winter rains have started before then.

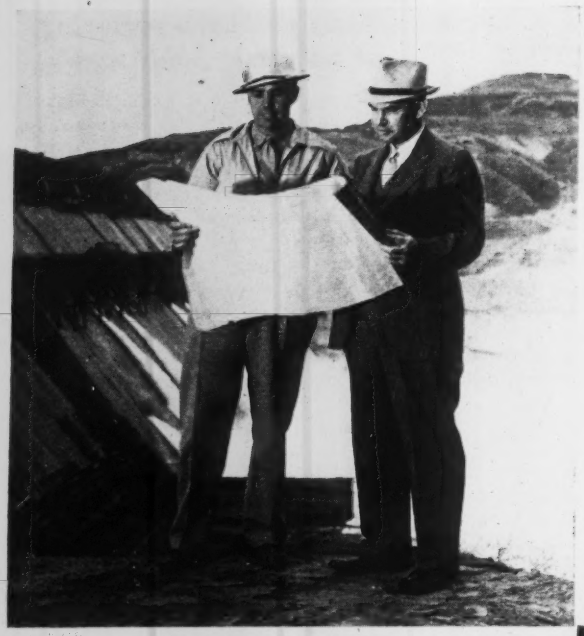
Kansas rains create muddy situation for contractor

A daily continuous 30-day rain period at Wichita, Kan., has created an almost impossible operating situation for the contractors on the 60-unit defense housing project at Wichita.

Construction had been under way for 30 days, on Oct. 29, and on all but three of those days it had rained. The entire 30-acre plot was ankle deep in water and gumbo, except in places where the water was nearly knee deep.

The Southern Mill & Mfg. Co., Tulsa, Okla. are prefabricating the housing units in their Tulsa plant and delivering them in sections to the site by trucks. The contract calls for erection of 600 units in 100 days, and the contract price was $1,200,000. Thus far, 30 units have been completed in 30 days since construction started. The contractor is now approximately 150 units behind contract schedule. Erection of the houses is being carried out under a subcontract by W. R. Grimshaw Co., of Tulsa. Earl O. Mills and John Noyes, St. Louis, Mo., are associated architects and engineers.

MEN AT WORK



A. R. NIEMAN (in the hard hat) general superintendent for Consolidated Builders, Inc., contractors on Grand Coulee Dam, and A. F. DARLAND, construction engineer, U. S. Bureau of Reclamation, have frequent sessions about completion of "the largest structure ever built by man" (see EN-R Sept. 11, 1941, p. 91). As the outline against the sky at the left shows, the concrete arches supporting the roadway across the spillway crest are well advanced—it won't be long now!

Checking the setting of the longitudinal finisher after a move to a second strip of concrete pavement for Connecticut's Wilbur Parkway up near the Massachusetts line. N. E. LOWN (below), engineer on the job, checks the gage as a mechanic turns the set screws.

Winners of the earth moving contest at the Moles clambake held on Long Island recently were O. E. STRUVE (left above), and J. P. GROWENDYKE (center), of the U. S. Engineer Office in New York. H. WEINBERG (right), of Shultz Dredging Co., Hoboken, N. J., claimed to be their manager but did not get a prize.

As progress engineer for Mason & Hanger at the Radford, Va. ordnance works, JOSEPH M. HIGGINS (right) has been plenty busy the past several months. Following graduation from Northeastern University with a civil engineering degree in 1939, Mr. Higgins was employed by Coughlan Construction Co. as assistant engineer and then went to Silas Mason Co. to act as field engineer on a sewer project at Chelsea, Mass. He joined Mason & Hanger about a year ago.

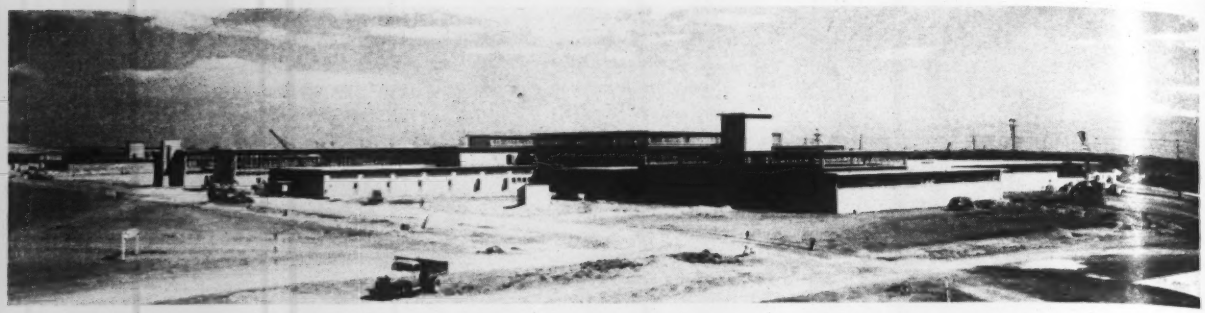
Engineers in charge of the big flood control dam at Franklin Falls, N. H., for the U. S. Engineer Department are shown at the left. H. C. BYRNES (left), resident engineer on the job since it started, except for about six months sick leave and vacation which kept him away a good part of this year, and J. W. BISHOP, assistant resident engineer, who was acting resident engineer during Mr. Byrnes absence.

ARTHUR E. SANKEY (left above), project manager on the FWA defense housing job near Linden, N. J. and FREDERICK RABBE, general superintendent for the Clifford F. MacAvoy Co. are applying mass production methods in rushing to completion 254 houses in 127 days.

Finishing details of the 4½-mile Birch Hill relocation job in Massachusetts on the Boston & Maine R. R. are discussed by GEORGE F. TIERNEY (left above), member of engineering staff and HAROLD S. ASHLEY, construction engineer.

Following service as assistant construction quartermaster at Camp Edwards, Mass., CAPT. OLIVER B. BROWN (left) is now acting as constructing quartermaster for a new $30,000,000 Des Moines, Iowa, ordnance plant.

As associate highway engineer for the Public Roads Administration, District No. 3, Denver, Colo., WM. M. JEFFREY (above) inspects some interesting jobs. Mr. Jeffrey, who graduated in civil engineering from the University of Colorado in 1913, from 1913 to 1917 was with the U. S. Forest Service. He has been with PRA for the past 24 years.



Denver Ordnance Plant opened five months ahead of schedule

The War Department's new Denver Ordnance Plant, one of six major facilities for the manufacture of small arms ammunition, was formally opened on Oct. 25. Constructed to manufacture .30 and .50 calibre cartridges, the Denver plant is the second of the six new plants to go into regular operation, the Lake City Ordnance Plant, near Independence, Mo., having been opened on Oct. 11.

Construction operations were begun on Dec. 26, 1940, and with a total of 6,300 men employed on the project, completion was possible five months ahead of the originally scheduled opening date.

Located on a reservation of 2,080 acres, the plant is composed of four main buildings, which may be seen in the above illustration, each 1,100x300 ft. There are about 175 other structures on the site, including various types of ammunition storage magazines, as illustrated on the front cover of this issue. Of particular interest are the covered passageways connecting the various storage magazines. The scope of the project is indicated by the fact that 8,332 ft. of gas piping, 58,000 ft. of sewer pipe and 72,891 ft. of water lines were required. A water tank of 200,000 gal. capacity and a pumping station with capacity of 1,400 gpm. are included. There are 9 mi. of railroad track within the plant area and nearly 12 miles of roads. The estimated cost is $40,000,000.

The plant was constructed under the direction of the Construction Division of the Quartermaster Corps; Broderick and Gordon, of Denver, were contractors, and Smith, Hinchman & Grylls, Detroit, were architects.

$60,000,000 approved for New York road work

Transfer of $60,000,000 from the balance remaining in New York state's $300,000,000 bond issue for grade crossing elimination work was approved by the voters of the state on Nov. 4. Half of the proceeds will go for extension of the parkway system that the state is building to relieve traffic on its main highways, and half will go to the department of public works for an expansion of its program of highway construction.

Principal items in the parkway program are $1,900,000 for completion of the state parkway along the west bank of the Niagara River on Grand Island; $4,600,000 for completion of the Lake Ontario State Parkway from Hamlin Beach state park to the Rochester city line; $3,600,000 for extension of the Eastern State Parkway from Billings (east of Poughkeepsie) to Lafayetteville (east of Red Hook); $7,000,000 for a new connection between Cross County Parkway and the Hutchison River Parkway, extension of the Sawmill River Parkway from Chappaqua north to Katonah, and reconstruction of the Bronx River Parkway from Kensico Dam to the New York City line; $7,000,000 for completion of construction of the Bronx River Parkway Extension in the Bronx from the city line to Eastern Boulevard; $5,500,000 for extension of Northern State Parkway on Long Island from Union Ave. to the Huntington-Amityville state highway and for improvements of the Northern, Southern and Ocean state parkways.

A. W. Brandt, superintendent of public works, has laid down a two-year highway construction program totaling $60,000,000, of which $54,000,000 now is in sight, made up of the $30,000,000 voted on Nov. 4, $12,000,000 of normal state highway funds and federal-aid funds in 1942, plus an estimated like amount for the year 1943.

The program was made larger than the amount of funds now in sight in order to provide for adjustment due to failure to obtain right-of-way for some projects or other causes of delay in starting projects included in the program.

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"Parking authority" proposed at Jamaica, N. Y.

A "parking authority" whose powers would include the right to purchase or lease real estate for auto parking is proposed for the Jamaica area in Queens, New York City and measures for its establishment will be presented to the New York State legislature. The plan is sponsored by the Jamaica Chamber of Commerce cooperating with real estate owners.

The authority would have the power to issue bonds and collect fees for use of parking spaces. Vacant plots of land in the business district would be leased by the authority and operated as parking lots. An estimated gross income of about $1,000 daily would be used to pay all costs, including retirement of bonds. Traffic movement in the Jamaica business district is seriously hampered by parked automobiles. Their number is estimated to be about 10,000 at any one minute from 8 a.m. to 6 p.m.

Sibley named manager of Grand River Dam Authority

S. H. Sibley of Springfield, Ill. has been appointed as general manager of the Grand River Dam Authority at Vinita, Okla. Mr. Sibley succeeds T. P. Clonts of Muskogee, Okla., who was dismissed at the insistence of Governor Phillips of that state.

Mr. Sibley has been superintendent of the municipal light and power plant at Springfield, and his appointment ends the search for a manager who was experienced in the public power field. It is generally considered that this appointment will end for the present the threat of a federal receivership for the Grand River Dam Authority. This project was financed by a loan and grant from the PWA and the revenue from its power sales is to be applied to the retirement of the debt.

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Missouri governor names state registration board

Three engineers and four architects have been named by Governor Forrest C. Donnell of Missouri to the registration board to administer the registration law for architects and engineers in that state. Arthur W. Archer, architect, of Kansas City, was named board chairman. The three members of the engineering division are W. W. Horner, St. Louis; E. E. Howard, Kansas City; and Frank Beard, Kahoka. The architectural division is made up of H. S. Bill, Columbia; Everett Johns, St. Joseph; and Walter Rathmann, St. Louis.

CAA requests $26,000,000 for airport construction

Proposals for expansion of the Civil Aeronautics Authority's airport building program which are now before the Bureau of the Budget will, if approved, bring CAA's airport work this year to about $200,000,000. For this fiscal year, CAA already has an airport appropriation of some $95,000,000 supplemented by about $40,000,000 of WPA funds. The proposed increase would add $76,000,000 to this amount.

During fiscal 1941—the first year of regular federal airport construction—CAA had $40,000,000 plus $9,000,000 of WPA money. The existing two-year program covers improvement of about 400 airfields. How many would be involved in the proposed expansion is not yet known.

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E. W. Kramer dies; officer of Power Commission

Edwin W. Kramer, regional director of the Federal Power Commission, with headquarters in San Francisco, died in that city Oct. 31, at the age of 64. Mr. Kramer was born in Louisville, Ky., and graduated from Cornell University, College of Civil Engineering, in 1905. Joining the U. S. Forest Service in 1907, he served that organization for almost 30 years, advancing from construction engineer in Montana to the important position of hydroelectric engineer in the California region in 1924.

During the following years Mr. Kramer carried out important assignments in the supervising of major hydro-electric projects which came under the jurisdiction of the Forest Service. During this time he was active in engineering research involving the design of dams and hydroelectric development in general.

In 1936 he resigned from the U. S. Forest Service to accept a position as regional director of the Federal Power Commission, with headquarters in San Francisco.

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Agreement reached on Niagara water diversion

Canada and the United States have worked out an agreement permitting this country to divert an additional 7,500 sec.-ft. of water at Niagara for power generation. The agreement is now before the Senate for approval, and little delay is expected for the bill's approval. This was revealed last week by Chairman Leland Olds of the Federal Power Commission in a letter to Rep. Alfred F. Beiter of New York.

This diversion, together with that authorized by international agreement last summer, will bring the total diversion to 12,500 sec.-ft., which is the full amount for which generating capacity is available. Diversion of the additional 7,500 sec.-ft. has been delayed until now because the full 30,000 kw. of firm power which can be obtained from the diversion has been earmarked for the Union Carbide Co. for manufacture of ferro-alloys. At present, Union Carbide is importing 50,000 kw. from Ontario Hydro, but it will not be able to receive this amount much longer.

It is reported that the agreement also provides for Canadian diversion of an additional 3,000 sec.-ft. It is impossible to confirm this, since the text of the agreement will not be made public until the Senate acts on the bill.

Maritime Commission orders concrete barges

The U. S. Maritime Commission this week awarded contracts for construction of 15 reinforced-concrete barges at a total cost of $9,000,000. This figure includes the cost of construction facilities as well as of the barges themselves. So subsequent contracts could presumably be placed at a somewhat lower figure. The barges to be built are ship-shaped and have crew facilities.

Five barges are to be built at Newark, N. J., by the Port Newark Shipbuilding Co., five at Houston, Texas, by San Jacinto Shipbuilders, Inc., and five others at Los Angeles will be built jointly by Allied Engineering & Shipbuilding and Tavares Construction Co. Amounts of the individual contracts were not released by the Maritime Commission.

The Port Newark firm was organized especially for construction of concrete barges and was one of a number of bidders for this work. The company has leased a 6-acre site from the old Submarine Boat Corp. at Port Newark, and will have the use of six of the 28 ways constructed during the World War by the old federal shipping board. Work on preparing the site and renovating the ways is expected to start immediately, it has been announced by E. A. Hurst, of New York, who is president of the Port Newark company.

The barges to be built at Newark and Houston were designed by Col. P. M. Anderson and those to be constructed at Los Angeles by D. M. Callis. In calling for bids, the commission set only general specifications and left it to the bidders to prepare detailed designs. The ships are to be designed to carry bulk cargo, including oil.

Work on War Department Building well under way

Construction of the Army's new headquarters building across the Potomac River from Washington, is now well under way. This new structure of pentagonal shape, 951 ft. on each side, will house a population of 20,000. Estimated cost of the structure is about $21,000,000.

Work to date has included the driving of 9,000 piles, placing of 10,000 cu.yd. of concrete and grading of 100 acres. Twenty percent of the first floor concrete slab is in place and forming for part of the second floor slab can be seen in the above illustration.

The project is being carried out under the general direction of Brig. Gen. Brehon V. Somervell, chief of the construction division, Office of the Quartermaster General. G. E. Bergstrom is architect-engineer on the project; Roy E. Mitchell is in charge of structural design. Constructing Quartermaster for the project is Capt. Clarence Renshaw. Contract for the project is held jointly by John McShain, Inc., Philadelphia, Doyle & Russell, Richmond, Va., and the Wise Contracting Co. of the same city.

MEN AND JOBS

Russell Brinker, formerly assistant professor of structural engineering at the University of Minnesota, Minneapolis, is now attached to the Office of the Officer in Charge of Construction, Naval Air Station, Quonset Point, R. I.

Otto E. Bartelds is now employed as a junior hydraulic engineer with the Water Resources Branch of the U. S. Geological Survey, Department of the Interior at Urbana, Ill.

H. A. Gibeau has been made assistant director of public works of Montreal. A graduate in civil engineering from Rensselaer Polytechnic Institute, Mr. Gibeau has been with the city for several years, having occupied the position of assistant engineer.

Major Carl H. Breitwieser has been transferred from constructing quartermaster, Memphis General Depot, Memphis, Tenn., to constructing quartermaster, Huntsville Arsenal and Redstone Ordnance Plant, Huntsville, Ala., succeeding **Major Neil R. McKay,** who was transferred to Camp Chaffee, Fort Smith, Ark., as constructing quartermaster.

F. W. Kittrell has been made chief engineer of the Interstate Commission on the Potomac River—a body formed by the states of Maryland, Virginia, West Virginia and the District of Columbia and charged with reducing pollution of the Potomac. Mr. Kittrell was for eleven years sanitary engineer on the staff of the Tennessee department of public health, devoting a major portion of his time to a long-range plan for cleaning up the Cumberland River. Previously he was with the North Carolina state board of health for a year and was an industrial chemist for Standard Oil of Indiana. A graduate in 1923 of North Carolina State College of Agriculture and Engineering, Mr. Kittrell spent a year at Harvard in 1933 doing graduate work on a Rockefeller fellowship.

F. W. KITTRELL

Charles W. Chipp, section engineer of the Eastern Department office of the Board of Water Supply of the City of New York, has retired after 34 years with the board to his native city of Kingston.

Edward B. Snell is now area engineer, U. S. Engineer Office, Albany, N. Y., relieving **Walter W. Wegner,** who had been temporarily assigned to the position as replacing **Lt. Col. C. W. Ball,** transferred to the Rock Island District. Mr. Snell has been with the Corps of Engineers, U. S. Army, in a civilian capacity since 1909. Until 1916 he was with the former U. S. Engineer Office at New London, Conn., and from 1916 until his present assignment he was with the Army Engineers in New York City.

William M. Piatt, Durham, N. C., consulting engineer, has just been appointed to the National Panel of Arbitrators of the American Arbitration Association, which has arbitrators in more than 1,600 cities. The purpose of this organization is to serve in efforts to expedite the settlement of any commercial or industrial dispute which might delay national defense contracts. Mr. Piatt, a graduate of the University of North Carolina and Lafayette College, has specialized in designing and supervising municipal public works and since 1931 has been consultant to the National Resources Planning Board.

Robert Van Sleen has been named superintendent of the Gastonia, N. C., water, sewer and light departments, succeeding the late Coit E. Rhyne. A native of Gastonia, Mr. Van Sleen is a graduate of the University of North Carolina and was connected with the state highway and public works commission in Raleigh before returning to Gastonia four years ago to become assistant utilities superintendent.

Thomas J. Evans, of Coaldale, Pa., member of the Pennsylvania Turnpike Commission, has been appointed vice-chairman in charge of operation and maintenance, a new post created by the commission to put operation duties into the hands of one executive.

B. A. Whisler, assistant professor of civil engineering at Iowa State College, having been granted a year's leave of absence, will serve as chief engineer of design and construction for a new army training camp with the U. S. Engineers at West Yellowstone, Mont. **Loren Heiple,** an Iowa State engineering graduate of 1939, will take Mr. Whisler's place at the college.

John R. Cantwell, assistant superintendent of the Ashland division of the Northwestern Railroad at Antigo, Wis., has been made assistant superintendent of the Chicago terminal at Proviso, Ill.

J. H. Mayne, Council Bluffs, Iowa, has been employed as engineer to make a preliminary survey for a proposed drainage district in Cass County, Iowa.

Orville Dorschner, Primghar, Iowa has been employed as assistant in the engineer's office of Sioux County, Iowa.

Clarence McDonough, former chief engineer for the Foundation Co. and director of engineering for PWA, has joined the H. K. Ferguson Co., of Cleveland and New York, industrial engineers and builders. As vice president in charge of construction, with headquarters at the Hanna Building in Cleveland, he succeeds **T. H. Mitchell,** who becomes executive vice president. A graduate of Massachusetts Institute of Technology in 1912, Mr. McDonough was with the Foundation Co. for 19 years; while in Europe as district manager, he supervised construction of the London Underground, the Paris Metro and extensive reclamation work for the governments of Spain, Italy and Greece. He was director of engineering for PWA from its inception until 1935, and served on President Roosevelt's committee to study the Florida ship canal. Mr. McDonough left PWA to become general manager and chief engineer for the Lower Colorado River Authority.

C. McDONOUGH

J. Wayne Courter, associate bridge engineer, Public Roads Administration, has been transferred from the Denver office to the San Francisco office for a 3-month assignment on special design work in connection with national defense highway structures.

Lloyd M. Johnson, engineer of maintenance and operation of the Sanitary District of Chicago, has been appointed commissioner of streets and electricity of the city of Chicago. **William A. Dundas,** engineer of mechanical design of the District, will assume Mr. Johnson's duties in addition to his own.

Lt. Col. Phillip C. Bettenburg, of St. Paul, well-known architect and engineer of Minnesota, has been promoted to command the 109th engineer regiment of South Dakota at Camp Claiborne, La. He succeeds the late Col. E. L. Lewis of Rapid City, S. D.

George R. MacLeod has received an appointment on the engineering staff of No. 3 Air Training Command, Royal Canadian Air Force, in Montreal. He had retired a few years ago from the service of the City of Montreal.

BRIEF NEWS

SAMUEL C. HADDEN, a former commission member, has been named chairman of the Indiana State Highway Commission to replace James D. Adams, whose resignation became effective Nov. 1.

A NEW ORDINANCE of the North Carolina State Highway and Public Works Commission designed to eliminate the billboard and sign hazard along North Carolina highways, goes into effect Nov. 1. All signs within 50 ft. of the highway center line will have to be removed, and the highway commission plans to remove all such signs which are not on leased property immediately. Owners of signs on leased property will be given 12 months to remove such billboards.

THE NEW HAMPSHIRE state highway department has granted a flat 10 cents per hour increase in wages to semi-skilled and unskilled labor employed on maintenance and highway construction work. The increase, effective late in October, increased the wages of 500 full time workers and adds $225,000 to the department's annual payroll.

A FEDERAL BUDGET ALLOWANCE of $6,500,000 has been approved for 1942 by President Manuel Avila Camacho of Mexico to finance Mexican government projects on the Lerma River in the state of Mexico. This work is to increase water supplies for the federal district, which includes Mexico City. Contracts are to be let soon.

THE INTERNATIONAL SUSPENSION bridge across the Rio Grande at Rio Rico, Mexico, which is directly south of Mercedes, Texas, collapsed Oct. 27 during flood stage on the river. The span was built in 1929 at an estimated cost of $66,000. According to reports no one was injured.

ALL POLES less than eight feet from the edge of the roadway on Pennsylvania highways in the future will be equipped with three reflector buttons in the interest of highway safety, it has been announced by the Pennsylvania State Highway Department. The buttons will have to be installed by the owner of the poles. At present, poles will be permitted to stand as they are, but the new type of reflector-protection must be installed when any changes are made, and on all new poles erected.

CALIFORNIA MOTORISTS pay less in gasoline taxes and vehicle license fees than road users of 44 other states, according to a report submitted to Governor Olson of that State by Director of Public Works, Frank W. Clark. The report shows that the average California automobile owner pays less than $12 a year out of a total of approximately $30 for the use of rural state highways, which have cost about $433,000,000 to build. Traffic on California's rural state highway system has increased 46 percent from 1934 to 1940, the report states; while this increase has been accumulating, mileage added to the system by legislative action has practically doubled the responsibility of the Division of Highways without any compensating increase in revenues. A further increase of 24 percent in traffic is anticipated by the year 1950.

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Tolls rise 110 percent on Louisville Bridge

Toll revenues collected in the fiscal year ending Nov. 1 by the Louisville Municipal Bridge Commission totaled $958,491.59, a record-breaking increase of 110 percent over the previous fiscal year. Vehicular crossings during the year totaled 4,626,959, an unprecedented gain of 191 percent over the 1940 fiscal year, according to Edward H. West, secretary-treasurer of the commission.

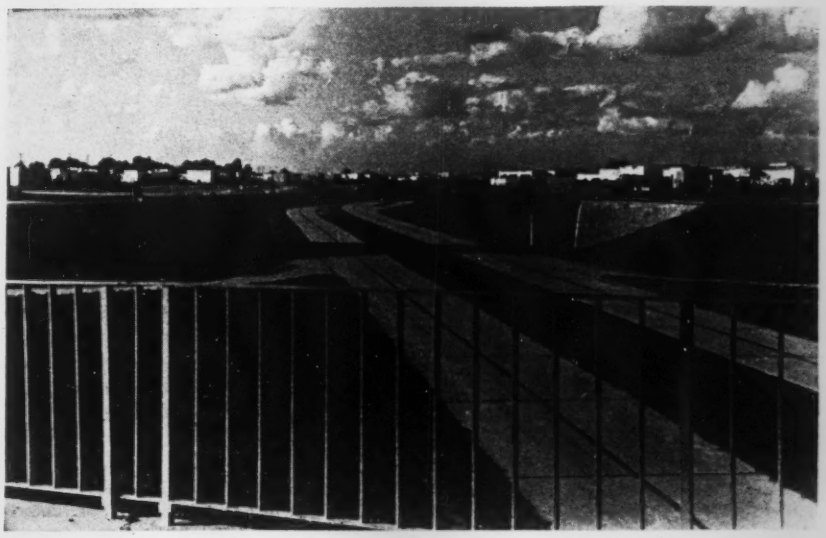
The average ticket rate realized was 17.6 cents a crossing, showing the popularity of ticket books in contrast to the 20-cent cash toll. A total of 1,084,162 crossings were from books of six tickets for $1, and 1,238,980 were from the 15-cent ticket books.

Design and specifications ready for Gatun Locks

Final designs and specifications have been completed for the largest single job on the Third Locks project at the Panama Canal. Work outlined in the specifications for the Gatun Locks and appurtenant works will cover a three-year period, beginning February, 1942, so as to have the new locks ready for operation by July 1, 1945. Bids will be opened in the Washington, D. C., office of the Panama Canal on Jan. 6.

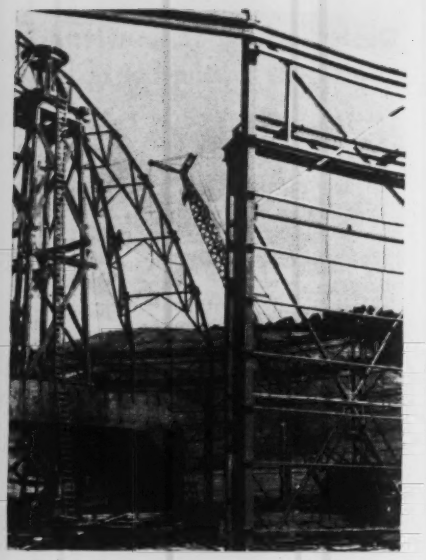
The President this week asked Congress to appropriate an additional $104,000,000 for continuation of work on the $277,000,000 project. Previously some $50,000,000 has been appropriated and authority has been granted to undertake contracts up to about $180,000,000.

Involved in the work of constructing the 1½-mile lock will be the problem of supplying more than 1¼ million pounds of metal, 2,800,000 bbl. of cement and nearly 4,500,000 tons of sand and gravel. The contract for building the new Gatun Locks is expected to be one of the largest single contracts ever awarded. In cost, the work will exceed by far any single contract which has been awarded for the Third Locks project up to the present which include, contracts for the entire excavation on the Atlantic and Pacific sides, furnishing 50,000,000 bbl. of cement, processing 11,500,000 tons of concrete aggregate, and the building of the Miraflores swing span bridge and approach trestle.



Express highway construction in Buenos Aires

All the most desired features of modern express highway construction, including divided traffic, landscaping of the right-of-way, and elimination of cross traffic, have been incorporated in the new Buenos Aires, Argentina, highway shown above. The new route is 15 miles long with 13 miles already completed. A total of 29 bridges is required and the right-of-way varies in width from 310 to 550 ft. Total cost will be $30,000,000.



Novel structure to house record atom smasher

The structure that will house the "atom-smashing" cyclotron now under construction at the University of California in Berkeley, Calif., will have a dome roof 160 ft. in diameter with a rise of 37 ft., supported on 24 columns arranged in a circular wall. This picture shows construction operations with two of the radial ribs of the dome in place, one end resting on the temporary falsework at the center. Much of the erection is done with the travelling crane here shown whose 85-ft. boom makes it possible for the crane to work inside the circular enclosure and yet reach out over the walls, which are 45 ft. high, to pick up steel from the ground outside the structure. The radial roof trusses are brought to the job in half lengths, the two halves are riveted together on the ground and are then erected in one piece.

Flood damage to Kansas roads nearly $1,500,000

Recurring floods on Kansas streams have caused damage to roads and bridges in the state estimated at $1,500,000 according to L. L. Marsh, maintenance engineer of the Kansas State Highway Department. During the spring and summer the loss was placed at $850,000, and high water since Sept. 1 added another $650,000.

Bridges suffered the heaviest damage, about 36 having been washed out entirely or so seriously damaged that extensive repairs or replacements were required. Among those destroyed was the the large steel bridge east of Blue Rapids, which resulted in an $80,000 loss to the highway department. Many grade fills that were rebuilt have been washed out as many as three different times. Cost of replacing the fills has been estimated at $100,000.

JOBS OF THE WEEK

MAGNESIUM PLANT, Painesville, Ohio.
The Austin Co., Cleveland, Ohio, will construct a magnesium manufacturing plant for the Diamond Alkali Co., Fairport Harbor. Estimated cost of the work is $16,000,000.

NAVAL AIR STATIONS, Florida.
Duval Engineering & Construction Co., George D. Auchter Co., and Ba[illegible]-Co. Co., Jacksonville, Fla., have been awarded a joint $2,514,401 contract for additional work at Naval Air Station by Bureau of Yards & Docks, Navy Department.

NAVAL AIR STATION, Norfolk, Va.
Virginia Engineering Co., Inc., Newport News, Va., has been awarded the contract for constructing the additional facilities at the Naval Air Station, Naval Supply Depot, and at the Naval Operating Base by Bureau of Yards & Docks, Washington, D. C. Estimated cost of the work is $3,627,000.

NAVAL OPERATING BASE FACILITIES, Norfolk, Va.
Byrne Organization, Dallas, Tex., will construct the additional facilities at the Naval Operating Base for Bureau of Yards & Docks, Navy Department, Washington, D. C., under terms of a $1,437,000 contract.

AIRPORT, Mather Field, Calif.
F. J. Twaits, Los Angeles, Calif., will construct the additional building and landing strips, runways and taxiways for the War Department at Mather Field. The work, estimated to cost $1,977,316, is being done by the U. S. Engineers.

DEFENSE HOUSING PROJECT, Kansas City, Kan.
J. E. Dunn Construction Co., Inc., Kansas City, Kan., has been awarded a contract by the Public Buildings Administration, Washington, D. C., to construct 350 one- and two-story, defense housing units. Project cost is estimated at $1,387,346.

HOUSING, Dover, N. J.
Rudolph R. Corrado, Inc., Newark, N. J., was low bidder with a bid of $1,118,600 for constructing 300 housing units when the Public Buildings Administration, Washington, D. C., opened bids.

DEFENSE HOUSING, Middle River, Md.
Farm Security Administration, Washington, D. C., awarded the contract for six hundred homes for workers at Glenn L. Martin bomber plant, to Allied Housing Associates, Inc., Langhorne, Pa., $1,581,000; four hundred homes to Stansbury Manor Corp., Middle River, $1,078,000; and one hundred homes to Home Building Corp., Kansas City, Mo., $284,000. Hale Walker, town planning consultant for FSA, and the Maryland State Planning Commission are working on the project.

POWER PLANT, Westerly, R. I.
United Engineers and Constructors, Inc., Philadelphia, Pa., has been awarded contract for the construction of power plant at Thompson's Corner by Narragansett Electric Co., Providence, R. I. Estimated cost $2,500,000. Philip D. Creer, Providence, R. I., is consulting engineer.

SEWAGE TREATMENT PLANT, New York, N. Y.
E. W. Foley, Inc., Brooklyn, was lowest bidder on structures and equipment for the Twenty-sixth Ward sewage treatment works, at $1,680,849. Harry Starkman & Brothers, New York, N. Y., were low on piping at $414,988. Bids were opened Nov. 7 by Department Public Works, New York.

TRANSMISSION LINES, Las Vegas, Nev.
Basic Magnesium, Inc., Las Vegas, will construct by separate contracts 40 miles of 230-kv. transmission lines. Estimated cost is $3,000,000. A contract for 16 mi. of steel water pipe from Lake Mead to magnesium plant was awarded to Engineers, Ltd., Los Angeles. Estimated cost of this work is also $3,000,000. J. M. Montgomery & Co., Los Angeles, is engineer for the work.

PLANT, Beloit, Wis.
Fairbanks-Morse Co., Beloit, is constructing a 1-story, 487x663 ft. engine shop and welding building by separate contracts. Estimated cost of this work with equipment is $5,500,000. W. Fred Dolke, Chicago, Ill., is architect, and Cunningham Bros., Beloit, engineers.

POWDER PLANT, Merrimack, Wis.
Hercules Powder Co., Wilmington, Del., awarded the general contract for building a $65,000,000 powder plant for the War Department to Bechtel-McCone-Parsons Corp., Los Angeles.

DRYDOCK, Boston, Mass.
J. F. Fitzgerald Construction Co., Boston, Mass., will build a shipbuilding dry dock at the Navy Yard for Bureau of Yards & Docks, Navy Department, Washington, D. C., under terms of a $1,500,000 contract.

NOTE—Additional bidding and contract news on over 800 projects large and small appear in the Construction News sections beginning on page 19.

Growing materials shortage theme of construction conference

Possible substitutions for materials subject to strict priority and allocation excites much interest at 3-day Washington, D. C. meeting. Construction industry warned of post-war duties.

For three days in Washington last week leaders in the construction industry took part in meetings that were principally concerned with the shortage of materials for non-defense construction. Other subjects were discussed, such as post-war planning and the status of defense construction, but the materials problem was dominant. Three organizations sponsored the conference. The Producers Council, made up of the manufacturers of building equipment and materials, the Structural Clay Products Institute and the construction and civic development department of the United States Chamber of Commerce.

The phase of the materials problem that excited most interest was concerned with possible substitutions for the materials, principally metals that are subject to strict priority and allocation. A paper by Hugh L. Dryden of the National Bureau of Standards, pointed out that the use of substitute materials can be widely practiced, but that changes in design must accompany such use; direct substitution is rarely possible. Furthermore, these substitute materials must already be available, for to create manufacturing facilities to make new materials would require critical metals. The government is continually developing emergency alternate specifications in an attempt to save critical materials. Also, the new federal plumbing code and manual, available from the Superintendent of Documents as Building Materials and Structures Report No. 66, points the way to savings in a good many critical materials. Mr. Dryden urged that specification writing bodies change their specifications to a basis of performance required and eliminate requirements for the use of specific materials. In the final analysis, he said, saving of critical materials rests upon the experience and ingenuity of engineers to develop alternates from among existing, non-critical materials.

Code changes to save materials

H. H. Waples of the bureau of industrial conservation of OPM, revealed how several industries have been cooperating in developing special codes that will save critical materials. One such is the plumbing standards for defense housing, which has been issued by the Office of Civilian Supply. This was worked out in conference with the plumbing industry. Similar work is now under way to revise the national electrical code, and work is being done with hardware manufacturers in an effort to eliminate or reduce copper and brass requirements.

Because the construction industry has always attempted to use the most economical material for a given purpose, the use of substitutes will naturally tend to increase costs and reduce efficiency, said M. W. Watson, president, Associated General Contractors of America. Mr. Watson urged that aid be given the construction industry to secure repair parts for equipment. "The maintenance of construction equipment is very important whether the owner is now on a defense contract or not, because a contractor may be called upon to meet an emergency at any time," said Mr. Watson. Because lack of certain materials may require quick changes in design and therefore in the construction plan, Mr. Watson urged that procedures for contract adjustments should be simplified to the point where they are almost automatic.

Harvey Wiley Corbett, architect of New York, envisions a time in the not distant future when building will be aided by the use of many new synthetic materials in easily-erected and demountable mass-produced building units. J. E. Leland, architect of Boston, pointed out that using more concrete and less steel in reinforced concrete is readily pos-

Vital defense road completed at Columbus, Ohio

Two strategically important highways, which eliminate a traffic bottleneck and provide ready access to two military establishments and a new airplane factory, have been recently completed at Columbus, Ohio, by the Work Projects Administration.

The program included the extension of East Fifth Avenue, and reconstruction of James Road, which links Fifth Avenue with Broad Street, the main highway east and west through Columbus. The Fifth Avenue extension is shown in the above photograph with the Curtiss-Wright airplane plant on the left, the Fort Columbus airport straight ahead in the distance, while the U. S. Army General Depot is located at the lower right, although not shown in the illustration.

The Fifth Avenue extension involved the construction of an entirely new road 2½ mi. long, consisting of two 24-ft. lanes surfaced with asphaltic concrete laid over an 8-in. water-bound macadam base.

The James Road construction replaces an old 16-ft. surface-treated road which was totally inadequate for the increased traffic load flowing to the U. S. Army Depot. This new highway, stretching 1½ mi. from Broad Street to East Fifth Avenue, is 50 ft. wide, paved with concrete and equipped with curbs and drainage outlets. Improvement of James Road was necessary to carry the increasing burden of traffic entering this highway from transcontinental route U. S. 40.

The Fifth Avenue extension and reconstruction of James Road were sponsored by Franklin County; the program was financed at a cost of $537,082. The federal government, through WPA, furnished $469,375, Franklin County having contributed $67,757, as its share of the total cost.

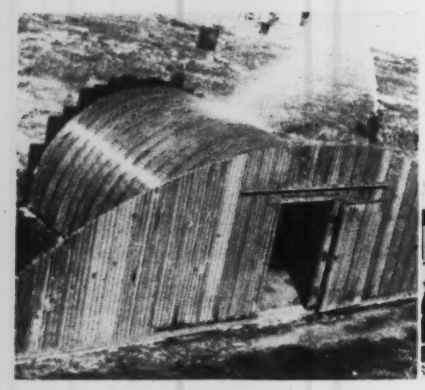
sible, since the deeper beams and thicker slabs that would result are quite acceptable. Footings may be designed without any steel, and it is also possible to do away with steel partitions, doors and window sash.

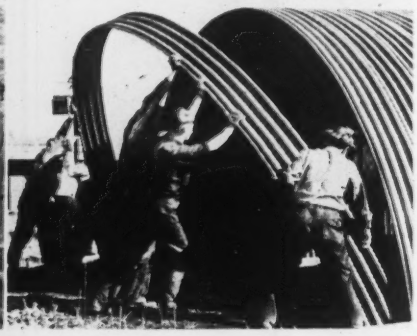
M. W. Adams, secretary, Modular Service Association, described American Standard Association's project A-62 which has been carried out under the joint sponsorship of the American Institute of Architects and The Producers Council to investigate the problem of coordinating sizes and dimensions of building products. A booklet presenting the report on the project is now available, outlining the suggested standard sizes for building materials, approved details for the assembly of these parts and building layouts that correlate the dimensions of the structure with the sizes of structural parts and the recommended details for their assembly. Under the coordination contemplated in this program, it is believed that many building materials can be conserved during the present crisis and that lower building costs will result in the period of reconstruction to follow.

Speaking of the status of our defense construction effort, William H. Harrison, director of the production division of OPM, stated that we were now at the peak of the defense construction effort. Having completed the cantonment phase of the job, we are now in the munitions plant phase. Contracts being let now at the rate of $400,000,000 a month will probably drop to $300,000,000 during the next ten months, according to Mr. Harrison.

At the annual dinner, spokesmen for both industry and labor warned that the demands of defense must not be permitted to leave the construction industry too crippled to handle the post-war problem. Richard J. Gray, acting president, building and construction trades department, AFL, declared: "In the application of priorities control and material allocations, it is vitally important that the production and employment needs of the industry are given full consideration. It will be the nation's loss if at the end of the crisis the industry is unable to assume its prime responsibility for post war reconstruction." David C. Prince, vice president, General Electric Co., and president, American Institute of Electrical Engineers, also urged joint action by government and industry to plan for the shift back to a peace-time economy. Stated Mr. Prince, "By 1943 we shall have increased our employment to 55,000,000 working 46 hours a week to produce a total of $110,000,000,000 of national output, of which $35,000,000,000 will be for defense. It is only reasonable to conclude that with foresight we can produce an equivalent amount of peace-time products in 1946 if we put in that many man-hours." He estimated that 13 billion dollars will be employed changing factories from war to peace-time production and 10 billion will be required for new residential construction and public works if the nation's full productive capacity is to be utilized.

Mr. Prince continued, "The Chief Executive has spoken of a shelf of public works to replace defense orders. Private industry must create a similar shelf of private projects, and the sum of the two must approach $23,000,000,000 annually if we are to utilize the full production capacity of our people. All this will require planning. The contribution of the public works shelf should yield a profit. That is the stake that private industry has in the plan."





Sheet piling igloo displayed in Chicago

A primer or powder storage igloo of lightweight corrugated steel sheet piling has been erected by the Caine Steel Co. at its yard in Chicago, at the request of Army officials, to demonstrate the possibilities of using this material for such structures. The experimental unit is simply a semi-cylindrical roof 20 ft. in diameter and 20 ft. wide, closed in at the back and front by steel piling walls. The front face, containing a sliding steel door, extends 11 ft. beyond the igloo on each side. This is to form wing walls to retain the necessary earth cover, which is 2 ft. thick at the crown.

The entire structure was fabricated from 8-gage corrugated sheet piling 14⅜-in. wide, with rolled interlocks, weighing 13.6 lb. per lin. ft., or 11.7 lb. per sq. ft. Curvature of roof sheets is formed by running the individual sheets through a special bending machine. The roof, front, back and wing walls are bolted to an angle fastened to concrete footings. An angle wale on each side stiffens the wing walls, which are further braced by angle struts bolted back to the roof structure.

Four workmen erected the igloo in half a day. The roof sheets, 31 ft. long, were set up one at a time by hand, and the interlocks were made with hand tools. No caulking was used in the interlocks. Thorough wetting of the structure with a fire hose showed no leakage.

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Salt water damages water system at Wilmington, N.C.

Because of an extended drought and unusually high tides, ocean water has backed up in the city's water reservoir at Wilmington, N. C., which has resulted in a salt content in the water mains of 1,500 parts of salt per million gallons of water. As a result of this condition, which has existed more than 30 days, 500 citizens have signed a petition asking that the city refrain from collecting water fees while the mains are filled with salt water. No action was taken by the city on the petition as of Nov. 10.

Engineers estimate that considerable damage has been done to the mains of the city's water system by the salt, and the Federal Works Agency has tentatively offered funds for the construction of a new water system provided the city issues $525,000 in bonds to pay for its share of the project. The bond issue is to be put to a vote of the citizens on Dec. 2.

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Small town provides free parking lots

The city of Plymouth, Mich., population 5,360, has opened a free 100-car capacity municipal parking lot back of its main street stores and is starting work on a second lot of 50-car capacity. According to the International City Managers' Association, the $9,000 cost of land and development was paid from general funds in the 1940-41 and 1941-42 budgets, in accordance with the pay-as-you-go policy the city has followed since 1930.

The lot is supervised 14 hours a day by an attendant. Supervision and maintenance, including lighting at night, will cost approximately $1,000 a year. To encourage more widespread use of the free parking lots, the city is considering installation of parking meters on the main business street.

OBITUARY

HAROLD SCOTT LOUGHRAN, civil engineer and surveyor, died Nov. 4 at Kingston, N. Y. Mr. Loughran, a native of Kingston, retired last January as assistant to Lawrence E. Van Etten, New Rochelle, N. Y. civil engineer, with whom he was associated for 40 years.

WILLIAM E. WARK, founder and active head of Wark & Co., building contractors of Philadelphia, died Nov. 4. Mr. Wark was 70, and a graduate engineer from Drexel Institute.

ARTHUR W. COGAN, civil engineer and senior-aide in the grade crossing elimination program of the New York State Transit Commission, died Nov. 3 at Brooklyn, N. Y. Mr. Cogan was 30, and an engineering graduate of Villanova College.

RONALD B. WILLS, 45, chief engineer of the Kansas State Highway Department, died Oct. 31 at Kansas City, Mo. He had been chief engineer since April 1939, and had been with the department since 1920. Mr. Wills had served as an assistant engineer, as assistant maintenance engineer, manager highway planning, and engineer of design. He was a graduate of the Missouri School of Mines and Metallurgy.

JOHN L. TAYLOR, contracting manager of the barge department, American Bridge Co., died Oct. 24 at Pittsburgh, Pa. Mr. Taylor was an outstanding authority on the design and construction of steel barges of all types for use in inland waterways and harbors. He designed and supervised the construction of the first all-welded steel barge.

BENJAMIN FRANKLIN MILLS, civil engineer, of Manila, P. I. died Nov. 5 at Washington, D. C. He was 57 years old, and a graduate of the Massachusetts Institute of Technology in 1907. Mr. Mills went to the Philippine Islands on a government engineering contract, later to become an independent consulting engineer. He had been retired since 1940.

FRANK E. HERZOG, Buffalo, N. Y., consulting engineer, who went to Russia in 1929 to aid in Soviet industrial development, died Oct. 29 at Sverdlovsk, Russia. Mr. Herzog was 52 and was recognized as an expert on steel-plant construction.

E. N. STANLEY, 50, civil engineer of Kilgore, Texas, died Nov. 2 at Fort Arthur, Texas. He was formerly city engineer of Amarillo, and at the time of his death was connected with the Texas Railroad Commission.

CURTIS A. FULLER, 54, died Oct. 9 at Rock Island, Ill. He had been assistant engineer of Rock Island for nine years, but at the time of his death was doing work at the Rock Island Arsenal.

AVERY GIBBS, of Statesville, N. C., was accidentally killed on a hunting trip near Marion, N. C. on Nov. 4. Mr. Gibbs was a North Carolina state district highway engineer.

CHARLES HALL RYAN, 88, former railroad contractor, died Nov. 4 at Russellville, Ky.

ARTHUR H. SCHNEIDER, 62, surveyor and civil engineer in Milwaukee County for 25 years, and at one time connected with the Milwaukee public works department, died Nov. 5 at Milwaukee, Wis.

FRANK T. HASSA, president of the Milwaukee General Construction Co., died Nov. 5 at Milwaukee, Wis. Mr. Hassa was 68, and had been engaged in highway construction work in Wisconsin for 35 years.

ELMER E. TERRELL, 80, died Nov. 6 at Lakewood, Ohio. Mr. Terrell was a dredge engineer and worked on the Panama Canal construction during the early stages of that work.

CONTRACTS AND CAPITAL

ENGINEERING CONSTRUCTION awards for the week, $130,160,000, climb sharply from the $44,209,000 reported for the short preceding week, but are lower than the $139,119,000 reported for the short 1940 week.

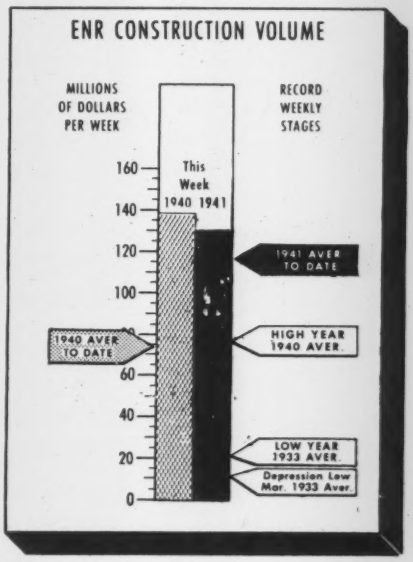
Federal work accounts for 75 percent of the week's volume, and state and municipal construction and private awards are each responsible for 12½ percent.

The current week's total brings 1941 construction to $5,424,579,000, an increase of 58 percent over the 46-week period last year, and 36 percent higher than the volume for the entire year 1940. Private awards for the 46-week period, $1,089,563,000, are 7 percent above a year ago, and public construction, $4,335,016,000, is up 80 percent as a result of the 179 percent gain in federal work.

In the classified construction groups, gains over last week are in waterworks, bridges, industrial buildings, public buildings, and unclassified construction. Public building construction is the only class of work to report an increase over the 1940 week.

New capital for construction purposes for the week totals $26,773,000, an increase of 88 percent over the volume for the 1940 week. The week's new financing is made up of $16,658,000 in corporate security issues, $3,675,000 in state and municipal bond sales, $6,300,000 in RFC loans for industrial expansion, and $140,000 in RFC loans for public improvements.

New construction financing for the year to date, $6,245,683,000, tops the $3,597,029,000 reported for the 46-week period last year by 74 percent.



CONTRACTS

(Thousands of dollars)

	Week Ending Nov. 14 1940	Nov. 6 1941	Nov. 13 1941
Federal	$74,312	$23,658	$97,210
State & Municipal	32,198	9,276	16,360
Total public	$106,510	$32,934	$113,570
Total private	32,609	11,275	16,590
TOTALS	$139,119	$44,209	$130,160
Cumulative 1941	(46 weeks)		$5,424,579
1940	(46 weeks)		$3,424,579

Note: Minimum size projects included are: Waterworks and waterways projects, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

NEW PRODUCTIVE CAPITAL

	Cumulative 1940 46 weeks	1941 46 weeks
NON-FEDERAL	$1,315,068	$1,294,565
Corp. Securities	221,794	338,777
State & Mun.	454,798	392,358
U.S.H.A. loans	218,704	30,399
R.F.C. loans	195,772	269,531
R.E.A. loans	40,000	100,500
Federal Aid—Hwy.	184,000	163,000
FEDERAL	$2,281,961	$4,951,118
TOTAL CAPITAL	$3,597,029	$6,245,683

FHA MORTGAGES

	Week Ending Nov. 9 1940	Nov. 1 1941	Nov. 8 1941
Selected for appraisal (Titles II and VI)	$24,350	$25,257	$22,330*
Cumulative 1941	(45 weeks)		$1,267,223*
1940	(45 weeks)		$1,127,009

* Subject to revision.

ENR INDEX NUMBERS

Index Base=100		1913	1926
Construction Cost	Nov. '41	266.13	127.93
Building Cost	Nov. '41	216.54	117.05
Volume	Oct. '41	263	115

CONTRACT UNIT PRICES

What contractors are bidding on different kinds of construction work

CAUSEWAY, MICHIGAN

OWNER: Michigan State Highway Dept.

PROJECT: Construction of 4,085-ft. causeway, north shore of Straits of Mackinac, Mackinac County, Mich. Roadway width 44-ft., 12-ft. shoulders. Bridge, 90-ft. long 840-ft. from shore to permit small boat passage. Also includes settlement gages.

CONDITIONS: Contractor to furnish all materials except 5 and 10-ton stone which is furnished under another contract. Core of fill to be excavated near site of work. Completion date June 1, 1942. Weather and wind conditions make transportation by barge difficult as depth of water near work is only from 5 to 12-ft. Rail transportation available. Wage rates are: skilled labor $1.12½ per hr.; semi-skilled 75c.; and common, 50c.

BIDS: Eight bids were opened August 20, 1941, ranging from the contract low of $616,160 to $1,302,610.

LIST OF BIDDERS:

1. Johnson & Greene, Whitmore Lake, Mich. (contract) $616,160
2. Wm. J. Meagher & Sons, Alpine Excavation Co., Claude M. Loomis, Bay City and St. Ignace, Mich 731,395
3. Bridgeport Core Sand Co., and Luedtke Engr. Co., Saginaw and Frankfort, Mich. 772,861
4. Bacco Constr. Co., Iron Mountain, Mich. 783,529
5. Hamer Bros. Inc., Detroit, Mich.; Jutton & Kelly Co., Milwaukee, Wis.; L. A. Davidson, Lansing, Mich. 802,522
6. Cooke Contracting Co., Detroit, and Marsman & Taber, Grand Rapids, Mich. 822,131
7. Great Lakes Dredge & Dock Co., Chicago, Ill. 888,938
8. William Gilliland, Alpena, Mich. 1,302,610

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Clearing	12.5 ac.	$60.00	$75.00	$100.00
2. Grubbing	2,000 s. rd.	.60	.75	.70
3. Borrow excavation, earth	122,300 c. y.	.10	.19	.25
4. Overhaul, earth	53,100 c.y.mi.	.06	.12	.15
5. Borrow excavation, rock	214,000 c.y.	.67	.975	1.18
6. Overhaul, rock	140,000 c.y.mi.	.09	.16	.20
7. Selected rock borrow, 1 to 5 ton	9,800 c.y.	3.00	1.75	3.25
8. Quarry stone, 1 to 5 ton	14,700 ton	4.00	4.50	4.00
9. Quarry stone, 10-ton. min.	61,400 ton	4.50	4.90	4.50
10. Quarry stone, 5-ton. min.	11,900 ton	4.40	4.60	4.40
11. 60-in. corr. metal pipe	106 l. f.	10.00	12.85	18.50
12. 6-in. std. black pipe casing	460 l. f.	6.00	5.00	6.00
13. 2-in. std. black pipe	750 l. f.	2.00	1.00	2.00
14. Tremie concrete	47 c. y.	20.00	35.00	35.00
15. Cement	74 bbl.	2.00	2.50	2.50
16. Steel piles — furnished	606 l. f.	2.50	3.40	2.50
17. Steel piles — driven	558 l. f.	3.00	2.50	3.00
18. Grade B concrete, substructure	49 c. y.	16.00	30.00	30.00
19. Grade B concrete, superstructure	188 c. y.	18.00	30.00	30.00
20. Cement	308 bbl.	2.00	2.50	2.50
21. Reinforcing steel	33,082 lb.	.05	.06	.06
22. Fabr. and erect struct. steel	108,600 lb.	.075	.07	.075
23. Bridge railing	180 l. f.	6.00	8.50	10.00
24. Field painting	L. S.	200.00	350.00	200.00
25. Rubbed surface finish	740 s. f.	.10	.10	.15
26. ½-in. cork filler	200 s. f.	.50	.60	.80
27. Sheet copper	320 lb.	1.00	.50	1.00

STEEL BULKHEAD NEW YORK

OWNER: City of New York, Department of Parks, New York, N. Y.; William H. Latham, park engineer.

PROJECT: Construction of steel bulkhead beginning at Fairlawn Avenue, concrete bridge, and other incidental work in Marine Park, Borough of Richmond, N. Y. (Contract No. R-16-241). Includes painting of existing bulkhead.

CONDITIONS: Contractor to furnish all materials and complete all work in 180 calendar days. Rail, highway and water transportation facilties available. Wage rates are: skilled labor, $1.40 to $2.25 per hr.; semi-skilled, 72c. to $1.[illegible]; and common, 87½c.

BIDS: Two bids were opened October 14, 1941, the low of $297,520, and $312,061. Engineer's estimate, $294,400.

LIST OF BIDDERS:

1. Charles F. Vachris, Inc., Brooklyn, N. Y. (low) $297,520
2. E. W. Foley, Inc., Brooklyn, N. Y. 312,061

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Unclassified excavation	3,700 c. y.	$0.30	$1.25	$1.00
2. Wet excavation	2,100 c. y.	.25	3.20	1.00
3. Borrowed fill	1,800 c. y.	.50	.60	1.00
4. Steel sheet piling	2,872,000 lb.	.055	.053	.055
5. Structural steel	213,000 lb.	.10	.18	.07
6. Tie bars and turnbuckles	110,000 lb.	.14	.17	.12
7. Misc. iron and steel	88,000 lb.	.15	.07	.12
8. Untreated timber piles	24,200 l. f.	.80	.86	1.00
9. Creosoted timber piles	2,800 l. f.	1.00	1.23	1.50
10. Untreated timber and lumber	123 Mbm.	150.00	200.00	140.00
11. Creosoted timber and lumber	41 Mbm.	200.00	180.00	175.00
12. Load test for piles	6 ea.	300.00	250.00	100.00
13. Concrete 1:1½:3	385 c. y.	10.00	17.00	15.00
14. Portland cement	770 bbl.	2.00	2.00	2.50
15. Steel bar reinforcement	38,000 lb.	.05	.07	.06
16. Dimension masonry	23 c. y.	125.00	150.00	150.00
17. Stone masonry	43 c. y.	50.00	82.00	100.00
18. Membrane waterproofing with protection course	350 s. y.	2.00	2.75	1.50
19. Painting existing bulkhead	50,000 s. f.	.35	.08	.25
20. Filling in back of bulkheads	18,000 c. y.	.25	.10	.25

* *Engineer's estimate.*

PEDESTRIAN TUNNEL CLEVELAND, OHIO

OWNER: City of Cleveland, Department of Public Service, John M. Wenrick, commissioner of engineering.

PROJECT: Construction of a pedestrian tunnel under the right-of-way and tracks of the Pennsylvania Railroad, south of and adjacent to Seager Avenue Underpass. Approximate length 120 ft. Involves all necessary excavation, concreting, liner plates, brick lining, trestle for switch track, waterproofing, painting and other miscellaneous work including drainage facilities.

CONDITIONS: Contractor to furnish all materials and complete work in 90 days. Rail, highway and water transportation facilities available. Wage rates specified are: bricklayers, $1.75 per hr.; semi-skilled, $1.10; and common, 90c.

BIDS: Five bids were opened September 11, 1941, ranging from the contract low of $28,993 to $42,693. Engineer's estimate, $31,446.

LIST OF BIDDERS:

1. Donnelly & Gallagher, Cleveland, Ohio (contract) $28,993
2. Harvey & Courey Constr. Co., Cleveland, Ohio 34,793
3. National Engineering and Contracting Co., Cleveland, Ohio 35,859
4. The Kalill Co., Cleveland, Ohio 38,103
5. The National Construction Co., Cleveland, Ohio 42,693

Item	Quan.	Unit Prices (1)	(2)	(3)
1. Excavation in open cut	2,000 c.y.	$2.75	$3.95	$1.00
2. Removing old concrete	130 c.y.	5.00	16.00	9.00
3. Excavation in tunnel section	380 c.y.	10.00	12.63	20.00
4. Structural concrete	340 c.y.	20.00	15.00	14.00
5. Sidewalks and special structures	15 c.y.	15.00	12.00	25.00
6. Grout	6 c.y.	20.00	35.00	12.00
7. Cement	570 bbl.	2.30	2.50	2.50
8. Grout machine	L. S.	500.00	300.00	850.00
9. Liner plates	3,420 s.f.	1.00	.70	2.00
10. Brick lining	2,710 s.f.	1.20	1.22	2.50
11. Trestle for switch track	L. S.	500.00	1,300.00	545.00
12. Steel reinforcing	40,000 lb.	.05	.08	.05
13. Waterproofing	380 s.y.	1.00	.60	.90
14. Electrical work	L. S.	150.00	500.00	450.00
15. Western Union manhole	L. S.	100.00	300.00	420.00
16. Painting walls of tunnel	35 s. y.	1.00	2.00	1.00
17. Drainage	L. S.	250.00	1,500.00	200.00

CONSTRUCTION REPORTS

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York
ELSIE EAVES, Manager *SCOTT McLEOD, Statistician*
(Daily service also available—Write for details)

Location of ENR Correspondents

Symbols and Abbreviations Include:

†	Federal Government
★	Project of $500,000 or over
ENR	Engineering News-Record
CD	Engineering News-Record Construction Daily

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterworks, $15,000; other public works, $25,000; industrial buildings, $40,000; other buildings, $150,000.

Classes of Construction
(Named in order of Listing)

Water Supply
Sewers, Waste Disposal
Bridges, Grade Cross'gs
Streets & Roads
Earthwork, Waterways
Unclassified
Latin America
Public Buildings
Commercial Buildings
Industrial Buildings

Stages Reported

PROPOSED: (except Streets & Roads):
BIDS ASKED (new announcements only. For full calendar, see also preceding issues of ENR);
LOW BIDDERS: All low bidder news will be the final reports published on the projects involved except where award is not made to the low bidder. In this case, a supplementary contract award report will be published.
CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

WATER SUPPLY

PROPOSED WORK

Ark., Waldron — Filtration plant. $25,000. Dickinson & White, Rector Bldg., Little Rock, engrs.

★**Conn., Hartford**—Metropolitan Dist. Water Bureau, Bd. Contr. & Supply, 550 Main St., $2,000,000 appropriation approved, water supply sys., Nepaug and Barkhamsted. C. Saville, 1026 Main St., engr.

†Fla., Starke—City, water sys. exten., addns., Docket Fla. 8-175. $148,960. **DPW.**

†Ga., Columbus—City, WW sys., imprvs., addn. Docket Ga. 9-133, $370,680. **DPW.**

★**Ill., Bloomington**—WW sys. imprvs., extens., etc. $1,254,500. Warren & Van Praag, Inc., Standard Office Bldg., and I. Woltmann, Unity Bldg., Decatur, assoc. engrs.

†Ia., Des Moines—City, completing reservoir, $175,000. **DPW.**

†Ia., Middletown—Town, well, pump house, storage tank, mains, imhoff tank sewage treatment plant, Docket Iowa 13-109. $47,500. **DPW.**

Ia., Oelwein—Imprv. water sys., pump house, water reservoir. E. E. Schenk, 214 Waterloo Bldg., Waterloo, engr.

†La., Minden—City, water sys. addns. imprvs. Docket La. 16-135. $86,257. **DPW.** CD 10/22—ENR 10/30.

†Md., Annapolis—Anne Arundel Sanitary Comn., watermains, Docket Md. 18-142. $65,000. **DPW.**

Mass., Fall River—Water pipeline, Lake Noquochoke, Dartmouth to South Watuppa Pond. Over $15,000.

Mass., Harvard—Water Dpt., Town Hall, water supply sys., approx. 10,000 ft. 6- to 12-in. c. i. water pipe, 250,000 gal. steel standpipe, wells, 14x20 ft., brick pump. sta., appurtenances. $480,000. PWA. H. E. Bailey, 177 State St., Boston, engr.

Mass., Leominster—Water Comn., City Hall, 1 story, 40x40 ft., brick, concrete Water Filter Plant 2 addn., piping, appurtenances. $50,000. PWA.

Mass., Shirley—Water Dpt., Town Hall, 2,500 ft. 6 in. pipeline, gravel packed well, 12x15 ft. pump. station, $20,000. DPW. Awaiting federal approval. H. E. Bailey, 177 State St., Boston, engr.

★**†Mich., Warren**—Warren Twp., water distr. sys. addns., Docket Mich 20-118. $892,800. **DPW.**

Minn., Chaska—F. U. Splettstoesser, clk., 300,000 to 750,000 gal., concrete reservoir. $30,000 (not official). Druar & Milinowski, 1411 Pioneer Bldg., St. Paul, engrs.

N. J., Harrison—Watermains. $23,000. DPW funds applied for.

N. Y., Ravena—Water filtration plant. $100,000. Morrell Vrooman Inc., 21 Main St., Gloversville, engrs. **(Correction**—type of work.) CD 10/27—ENR 10/30, under Sewers.

★**†N. C., Wilmington**—City WW sys. addn., imprvs., new pump. station, filtration plant, elevated storage tanks, water supply and distr. sys. addn., Docket N. C. 31-119. $1,226,000. **DPW.** CD 10/28—ENR 10/30.

N. D., Strasburg—Approved $45,000 bond issue, WW and sewerage sys.

Pa., Reading — Relocating Pottsville Pike water transmission mains, Cross Keys, 1,035 ft. 30 in. pipe, $40,000; relocating mains Pikesville Pike, Muhlenberg sector, $20,000; 16 in. c.i. watermain Glenside sect. $50,000. R. S. Chubb, city engr.

Pa., Rouseville—Boro Council, water supply and distr. sys. exten., imprvs., addns. Over $15,000.

†S. C., Fort Jackson—Con. Q.M., water lines, pumps, miscellaneous water sys addns. $75,000. Tomlinson Eng. Co., 1208 Bull St., Columbia, engrs.

†Tex., Abilene—City, 4 m. g. daily rapid sand filter, Lake Abilene Water Treatment Plant, and Lake Abilene earth-filled dam imprvs., Docket Tex 41-176. $151,308. **DPW.** CD 8/5—ENR 8/7.

Tex., Galveston—City, WW expansion, developing deep wells, 2 concrete surface reservoirs, etc. West Side. $160,000. DPW funds authorized. Ford, Bacon & Davis, c/o Santa Fe Ry. Bldg., Galveston, engr.

Tex., Maud—P. M. White, mayor, water supply sys., storage tanks, watermains, hydrants, etc., and sanitary sewers, disposal plant, sewer mains, etc. $311,489. Applied for DPW funds. Beavers, Lodal & Wells, Smith-Young Tower, San Antonio, engrs.

†Tex., Port Lavaca—City, well, sand trap settling tank, pump. facilities, distr. sys. addns., Docket Tex. 41-217. $34,000. **DPW.** CD 8/13—ENR 8/21.

Tex., Port O'Connor—City, c/o C. D. Wells, WW exten., storage tanks, pumps, etc., sewage collecting sys. with sewage disposal plant. $400,250. Applied for DPW funds. Beavers, Lodal & Wells, Smith-Young Tower, San Antonio, engrs.

†Va., Dublin—Town, municipal WW sys. addns., new deep well, storage tank, distr. sys. addn., Docket Va. 44-231 and Va. 44-903. $46,000 and $36,900. **DPW.**

Wash., Pomeroy—Imprv. water sys., new piping and installation and altitude controls on reservoirs. $22,100. G. D. Hall, Larson Bldg., Yakima, engr.

Wash., Seattle—Bids soon 36 in. steel or c. i. water main, Ninth Ave. S. Airport Way and Eighth Ave. to Dearborn St., 24 in. line Holgate St. from Airport Way to Alaskan way, $220,000. C. L. Wartelle, County-City Bldg., engr.

B. C., Esquimalt—Water supply sys., imprvts. under supervision City Engineer, Town Hall. $28,000. P. J. McCullock, Town Hall, supt. Works.

Que., Lauzon—Filtration plant exten. $30,000. E. J. Hamel, City Hall, Quebec City, engr.

Que., St. Francois de Sales Station—J. E. Marineau, municipality clk., WW. sys. $25,000.

Que., Ville La Salle—Municipality, c/o A. Gravel, clk., WW exten. $55,000. W. L. Lauriault, 861 Convent St., engr.

Sask., Kamsack—2½ mi. watermains. $25,000. J. M. Bloomfield, Town Hall, engr.

BIDS ASKED

Bids Asked About November 17

★**Md., Sparrows Point**—Bethlehem Steel Co., Sparrows Point, pump. sta., installing ½ mi. 48 in steel welded pipe, incl. coagulators, clarifiers, settling basins. $2,000,000. Extended date. Whitman, Requardt & Smith, 1034 St. Paul St., engrs. CD 10/29—ENR 8/21.

Bids Asked November 19

Pa., Allison Park—Bd. Comrs. Ross Twp., J. A. Hollinger, secy., Allison Park, filtration plant, WW., Contr. 6 pipelines, appurtenances, Contr. 7, reservoir; Contr. 8, substructure and Contr. 9 superstructure for filter plant and substation; contr. 10, electrical work, Contr. 11, river crossing. Chester Engineers, 210 E. Parkway, N.S. Pittsburgh, engrs.

Bids Asked November 21

†S. C., Beufort—City, WW imprvs., Docket S.C. 38-105. **DPW.** The Harwood Beebe Co., 208 Montgomery Bldg., Spartanburg, engrs. CD 9/30-ENR 10/2.

Bids Asked November 25

Ia., Council Bluffs—Water supply intake, incl. Contr. 2, intake screens, Contr. 3 low service pumps, Contr. 4, valves and sluice gates. $75,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., engrs. CD 9/12—ENG 9/18.

Bids Asked December 2

†W. Va., Huntington—U. S. Eng., Huntington, constructing 35, Richmond and Oak Sts. pump. stations for Local Protection Project for Sect. 3 (Guyandot); adv. ENR 11/13.. CD 10/28—ENR 10/30.

LOW BIDDERS

Mass., Dighton—Bristol Co. School, office of Dir., Segregansett St., Nov. 3, water sys., overhead tank, water pipelines, sprinkler sys., Co. Agricultural School, from C. Reppucci & Sons, Inc., 10 Garden Court St., Boston. **$23,686.** Hayden, Harding & Buchanan, Park Square Bldg., Boston, engrs.

N. C., Salisbury—City, Oct. 28, WW imprvs. from Hobbs-Peabody Constr. Co., 317 W. Worthington Ave., Charlotte, **$58,500.** CD 10/17—ENR 10/23.

★**†Va., Newport News**—City, filtration plant, transmission mains, etc., from Bass Eng. & Constr. Co., 2832 E. Grand Blvd., Detroit, Mich., **$988,000. DPW.** CD 10/16—ENR 10/16.

CONTRACTS AWARDED

Conn., Manchester—Water Dpt., 41 Confer St., imprv. water sys., pine lines. **WPA. $124,600.**

Ia., Chariton — WW imprvs., dam, to McCarthy Constr. Co., Davenport, **$18,303**** intake, sluiceway, spillway, abutment walls, channel, embankment protection, to G. Jordan & Sons, Centerville, **$31,984.** Est. $100,000. Bids 10/14. Stanley Eng. Co., Muscatine, engrs.

Mass., Boston — Commonwealth of Mass., Metropolitan Dist. Comn., Water Div., 20 Somerset St., Contr. 137, furnishing, laying approx. 6,570 ft. 24 in. steel water pipes, appurtenances, Arlington, to E. M. Matz, Inc., 101 Moraine St., Jamaica Plain. **$93,705.** Bids 10/30. CD 10/14—ENR 10/23.

★**†Nev., Las Vegas**—Basic Magnesium, Inc., P.O. Box 1150, laying 16 mi. 40 in. steel water supply line, Lake Mead to magnesium plant for War Dpt., to Engineers Ltd., 605 W. Olympic Blvd., Los Angeles, Calif. Defense Plant Corp. will finance. Owner taking bids for fabrication. Total est. **$3,000,000.** J. M. Montgomery & Co., 306 W 3 St., Los Angeles, Calif., engr. CD 9/9—ENR 9/11 under Public Bldgs.

N. J., East Orange—Excavating 40,000 cu. yd. earth from Water Reservoir, Livingston, **WPA. $40,000.** C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

†Tex., Fort Bliss—Con. Q.M., Fort Bliss, imprv. water and sewer lines, drainage, leveling roads, etc., **WPA. $68,000.**

Tex., Houston—C. A. Pickett, mayor, WW distr. imprvs., 27,900 ft. 2 in. c.i. and 8 in. pipe, to Massengale & Sauer, 229 Clifton St. **$33,082.** Bids 8/27, awarded 11/3. CD 8/25.

†Tex., Laredo—Con. Q.M., Ft. McIntosh, imprv. water and sanitary sewer lines, grounds, lighting, etc. Fort McIntosh. **WPA. $57,291.**

Wash., Cathlamet—B. McDonnell, city clk., furnishing c.i. pipe for water sys., to H. G. Purcell Co., Colman Bldg., Seattle. **$15,000.** CD 10/2.

Wash., Seattle—King Co. Water Dist. 61, c/o Parker & Hill, engrs., Smith Tower, rebuilding, extend. domestic water distr. sys., installing fire hydrants, White Center Dist., south of here. **WPA. $118,000.** CD 10/14—ENR 10/16.

WATER SUPPLY (Contracts Awarded, Cont'd.)

Wis., Lannon—Village, water supply sys., **WPA. $50,718.**

N. B., Moncton—Water reservoir exten., to R. McManus, 250 Bonaccord St. Est. **$20,000.** E. B. Martin, City Hall, engr.

Que., St. Ephrem—c/o I. Mathiew, municipality clk., reservoir, pump. sta., to O. Giguere, St. Joseph de Beauce. Est. **$35,000.**

Que., Shawinigan Falls—A. J. Meunier, city clk., 12 in. watermain, day labor. **$25,000.** R. Dorion, City Hall, engr.

SEWERS, WASTE DISPOSAL

PROPOSED WORK

†Ala., Talladega—City, sewerage sys. addns., imprvs., Docket Ala. 1-122. $150,000. **DPW.**

Ark., Van Buren—T. English, mayor, converting open into closed sewers. $25,000.

†Calif., Lompoc—City, sewerage sys addn., imprvs., constructing sewage treatment plant, Docket Calif. 4-246. $110,407. **DPW.** CD 9/3—ENR 9/11.

†Calif., Long Beach—U. S. Eng., 751 S. Figueroa St., Los Angeles, postponed indefinitely bids to have been opened Nov. 3, sewer, water and gas sys., Long Beach Air Corps Ferrying Command. CD 10/22.

Calif., Oakland—Drainage structures, Snake Rd. with storm sewer, Redwood Rd., W. W. Frickstad, city engr.

†Calif., Salinas—City, exten. sanitary sewerage sys., enlarging sewage treatment plant, Docket Calif. 4-142. $391,000. **DPW.**

†Calif., Salinas—Alisal Sanitary Dist., Salinas, sanitary sewerage sys., incl. collection, trunk and outfall sewer lines, pump. stations, treatment plant, Docket Calif. 4-101. $356,134. **DPW.**

†Fla., Starke—City, sewerage sys. extens., imprvs., Docket Fla. 8-174. $192,500. **DPW.**

Idaho, Nampa — Sewage disposal plant. $183,000.

Ill., Herrin—$60,000 bond election soon, sewage disposal plant, with auxiliary piping, sanitary sewer extens. $100,000. Will seek federal funds. G. Anderson, Annex Bldg., engr.

Ill., Milan — Sewerage sys. Over $25,000. Stanley Eng. Co., Muscatine, Ia., engrs.

Ia., Sioux Rapids—Sewage disposal plant. $25,000. Buell & Winter, 508 Insurance Exch. Bldg., Sioux City, engrs. CD 11/6.

†Ky., West Point—Town, sanitary sewerage sys., treatment plant, Docket Ky. 15-109. $57,380. **DPW.**

†La., Minden—City, sewage treatment plant, sewerage sys. addns., extens., imprvs., Docket La. 16-118. $150,397. **DPW.** CD 10/22—ENR 10/30.

†La., Minden — City, F. D. Culbertson, mayor, sewerage facilities, Docket La. 16-901. $202,000. **DPW.**

Md., Baltimore—1 story, 60x90 ft., brick, terra cotta sewage pump. sta., concrete fdn., Broaning Hy.

†Mich., Battle Creek—City, sewage treatment plant addns., Docket Mich. 20-104. $302,530. **DPW.** CD 3/25—ENR 3/27.

†Mich., Center Line—City, sewerage facilities, Docket Mich. 20-160. $55,820. **DPW.**

†Mich., Center Line — Federal Security Agency, 25 and E Sts. N.W., Wash., D. C., sewerage facilities, Docket Mich. 20-186. $35,100. **DPW.**

†Mich., Detroit—Wayne Co., sewerage facilities, Docket Mich. 20-161. $387,000. **DPW.**

★**†Mich., Mount Clemens**—Macomb Co., sewerage facilities, Docket Mich. 20-188. $749,934. **DPW.**

★**†Mich., Pontiac**—Oakland Co., intercepting sewer, incl. equip. for pump. sta., etc., Docket Mich. 20-167. $812,000. **DPW.**

†Mich., Roseville—Village, sewerage facilities, Docket Mich. 20-130. $462,200. **DPW.**

★**Mich., Warren**—Warren Twp., E. J. Tallman, supervr., sewerage sys., Docket Mich 20-117. $1,825,352. **DPW.**

Minn., Mound — L. V. Alvin, village clk., sewage disposal plant. Over $50,000. Druar & Millinowski, 1411 Pioneer Bldg., St. Paul, engrs.

N. H., Portsmouth—Water Dpt., 126 Daniels St., sewer exten. 5 outlets. $150,000. PWA Whitman & Howard, 89 Broad St., Boston, Mass., engrs.

N. J., East Orange—Storm sewers, manholes, etc., Warwick St., Girard, Glenwood and Renshaw Aves. $61,710. WPA. W. Willegarod, Town Hall, WPA engr.

N. J., East Paterson—Pump. station, sewage disposal plant alterations, addns. $38,645. Applied for DPW funds. McClave & McClave, 600 George Rd., Cliffside Park, engrs. CD 9/15—ENR 9/18.

N. J., Keansburg—Received no bids Oct. 28, brick, steel sewage treatment plant addn. Will readvertise. L. P. Booz, Jr., 263 Madison Ave., Perth Ambody, engr. CD 10/20—ENR 10/23.

N. J., Newark — Sheeting, sewer, Pioneer St. $58,032. WPA. J. Costello, city engr.

★**N. J., New Brunswick**—Sewage disposal plant addn., 1 mi. sewer lines, $505,174. DPW funds applied for. D. M. Vail, 257 Suydam St., engr.

★**N. J., Paterson**—Rein.-con. storm sewers. $1,995,000. Applied for DPW funds. V. J. Scanlon, City Hall, engr.

N. J., Trenton—State Dpt. Institutes & Agencies, State House, imprv. grounds, sewage facilities, water sys., water lines, etc., North Jersey Training School, Totowa. $52,435. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

†N. C., Wilmington—City, exten. sewerage sys., Docket N.C. 31-117. $125,000. **DPW.** CD 9/18—ENR 9/25.

Ore., Hermiston—35,000 ft. 6- to 8-in. sewerage sys., disposal plant. $109,680. Applied for DPW funds. R. H. Corey, Bedell Bldg., Portland, engr.

Ore., Pendleton—Remodeling sewage disposal plant, clarifiers, digesters, bio-filters, storm and sanitary sewer line extens. $169,838. DPW funds sought. R. H. Corey, Bedell Bldg., Portland, engr.

†S. C., Fort Jackson—Con. Q.M., sewage disposal plant, primary clarifier, sedimentation basin, sludge digester, line addns. $250,000. Tomlinson Eng. Co., 1208 Bull St., Columbia, engrs.

Tenn., Fountain City—J. A. Murrian, chn. City Comn. sewerage sys. $315,000.

†Tex., Beaumont—City, 100 ton garbage incinerator, Docket Tex. 41-146. $102,262. **DPW.** CD 7/29—ENR 7/31.

★**Tex., Corpus Christi**—A. C. McCaughan, mayor, $350,000 bond election Nov. 22, 12- to 138-in. storm sewer lines, etc., Myers & Noyes, Tower Petroleum Bldg., Dallas, engrs., G. Blackburn, city engr., $200,000 bonds incinerator, G. Blackburn city engr.; $300,000 bonds, sanitary sewer collecting mains, Docket Tex. 41-174 **DPW.** Meyers & Noyes, Tower Petroleum Bldg., Dallas, engrs. G. Blackburn, city engr. F. T. Stafford, 1921 Post Office, Galveston, engr. Will apply for federal funds. CD 10/8—ENR 10/16.

Tex., Edinburg—A. A. Aldrich, mayor, sanitary sewer exten. $65,460. Applied for DPW funds. N. E. Wilcox, 112 N. 12 St., engr.

†Tex., Mineral Wells—City, sanitary sewer exten., new sewage treatment plant, replacing outfall sewer. Docket Tex. 41-158. $165,850. **DPW.** CD 8/4—ENR 8/7.

†Tex., Velasco—City, c/o E. F. Roeller, mayor, water and sewerage sys. addns., Tex. 41-189. $130,000. **DPW.** Garrett Eng Co., 3504 Audubon St., Houston, engr. CD 11/7—ENR 11/13.

Wash., Bremerton—Sewer Dist. 2, sewerage sys., 30,000 ft. sewer and outfall pipe, etc. for Manette, east of here. $112,659. DPW funds sought. Parker & Hill, Smith Tower, Seattle, engrs.

Wash., Bremerton—Kitsap Co. Sewer Dist. 4, Courthouse, Port Orchard. 20,000 ft. 6- to 18-in. sewerage sys., sewage treatment plant, Pleasant Valley, near here. $119,915. DPW funds sought. Parker & Hill, Smith Tower, Seattle, engrs., CD 8/5—ENR 8/7.

Wash., Pomeroy — Sewage disposal plant. $49,500. G. D. Hall, Larson Bldg., Yakima, engr.

Wash., Port Orchard—Sewer Dist. 3, 20,000 ft. 6- to 18-in. sewerage sys., etc. Annapolis, near here. $79,680. DPW funds sought. Parker & Hill, Smith Tower, Seattle, engrs.

BIDS ASKED

Bids Asked November 17

N. J., Livingston—9 mi. sanitary sewers, force main, pump. station, near Livingston Center. $85,000. T. F. Bowe, 110 William St., N. Y., engr.

N. Y., Kew Gardens—President Queens Boro, Queens Boro Hall, 120-55 Queens Blvd., combined sewer, appurtenances, Hoyt Ave., 21, 27, 28 and 29 Sts.; sanitary sewer, 26 Ave., 123 St., 25 Rd., temporary connection 26 Ave.; sanitary sewers, 111, Sayres and N. Conduit Aves., 177 St., 178, 158, 159 and 160, and 161 Sts., Latham Lane, New York Blvd., College Point Causeway, etc.

Bids Asked November 21

†Ala., Jacksonville—City, sewage treatment plant, Docket Ala. 1-127. $30,630. **DPW.** J. W. Goodwin, 1241 Martin Bldg., Birmingham, engrs. CD 10/6—ENR 10/9.

Bids Asked November 29

†La., De Ridder—City, sanitary sewer and water sys., Docket La. 16-102. **DPW.** Extended date. $478,222. A. F. Rideout, City Hall Bldg., engr. CD 10/24—ENR 10/30.

LOW BIDDERS

†Ariz., Higley—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Nov. 4, sewage treatment plant, Mesa Military Airport, near here, from Del E. Webb Constr. Co., 1633 W. Jefferson St., Phoenix. **$105,358.** CD 10/29.

†Calif., Santa Ana—U. S. Eng., 751 S. Figueroa St., Los Angeles, Oct. 31, sewer, water and gas sys. Santa Ana A.C. Replacement Center, from Vinson & Pringle, S. 19 Ave., Phoenix Ariz., **$236,041.** CD 10/29.

†Ill., Great Lakes—Great Lakes Naval Training Station, Oct 21 sewerage [illegible] plant addns., imprvs., from J. F. [illegible] W. Adams St., Chicago. **$173,665.** [illegible] 000. CD 10/16.

N. Y., Kew Gardens — President Queens Boro, Boro Hall, 120-55 Queens Blvd. [illegible] sanitary sewer, etc., Rockaway [illegible] from A. Clemente, 68-54 Orvil St. [illegible] Hills. **$25,645.** CD 10/28—ENR 11/6.

★**N. Y., New York**—Dpt. P. Wks. [illegible] pal Bldg., Nov. 7, Contr. 4, [illegible] and equip., 26 Ward Sewage [illegible] Works, from E. W. Foley, Inc., [illegible] St., Brooklyn, **$1,680,849;** Contr. [illegible] from Harry Starkman & Bros., 34 [illegible] Ave., **$414,988.** CD 10/27—ENR 10/30.

Pa., Phila.—Dpt. P. Wks., Bureau [illegible] sewers Stantwood and Castor Sts., [illegible] Ventresca, 1450 Grange St. **$66,282.**

CONTRACTS AWARDED

D. C., Wash.—Dist. Comrs., District Bldg., Reno Rd. stormwater conduits between Spring land Lane and Cumberland St. N.W., to W. P. Brenizer Co., 1504 S. Capitol St., **$25,968.** Bids 10/21. CD 10/16.

Ill., Millstadt—Sewers, to Keeley Brothers Contg. Co., 4211 State St., East St. Louis. Est. approx. **$25,000.**

Ia., Lenox — Sanitary sewerage sys. **WPA.** $50,000. CD 7/16—ENR 7/24.

†Mo., Fort Leonard Wood—Con. Q.M., Fort Leonard Wood, incinerator, to E. [illegible] Constr. Co., Ry. Exch. Bldg., St. Louis, Mo. **$27,275.** Bids 10/24. CD 10/15.

Pa., Phila.—Dpt. P. Wks., Bureau Eng., City Hall Annex, sewers, Rising Sun Ave., Bingham, Passmore and 7 Sts., to E. Ventresca, 820 E. Haines St. **$37,000.**

Tex., Aransas Pass—Town, storm sewers. WPA. Approx. **$50,000.**

Tex., Wichita Falls—B. Miller, mgr., sanitary sewer exten., to Clouse & Mathias, 130 Winnipeg St., San Antonio, **$26,400.** Est. $25,000. Bids 10/22. CD 10/10—ENR 10/16.

BRIDGES, GRADE CROSSINGS

PROPOSED WORK

★**Fla., De Land**—Comrs. Volusia Co., De Land, 3 bridges over Halifax River, 1 at Daytona Beach $600,000, 1 Ormond Beach $600,000, other Port Orange $400,000. I. H. Dowling, c/o State Hy. Dpt., Tallahassee, engr.

Idaho, Nampa—Rebuilding undercrossing, 16 Ave. $60,000.

Ill., Chicago—Bridge over Calumet River, E. 95 St. $80,000. G. H. Baker, Centennial Bldg., Springfield, state engr. co. roads and city streets.

Ill., Warrenville—State Dpt. Wks. & Bldgs., Div. Hys., Springfield, viaduct over Chicago, Aurora & Elgin R.R., Butterfield Rd. M. J. Fleming, Centennial Bldg., Springfield, acting ch. state hy. engr.

Oklahoma—State Hy. Dpt., Oklahoma City, I-beam, concrete bridge, farm-to-market road, south of Drumright, Creek Co. $28,000. V. T. Moon, Capitol, Oklahoma City, engr.

Oklahoma—State Hy. Dpt., Oklahoma City, overpass over Frisco lines at Mill Creek, Johnston Co., $35,000; made preliminary plans overpasses over Rock Island Lines, Geary, Blaine Co., $28,000. V. T. Moon, Oklahoma City, engr.

Okla., Marble — State Hy. Dpt., Capitol, Oklahoma City, made preliminary plans farm-to-market road, over Sallisaw Creek. $25,000. V. T. Moon, Capitol, Oklahoma City, engr.

Okla., Maysville—Garvin Co., Pauls Valley, made preliminary plans bridge over Rush Creek, near here. $27,000. P. A. Little, Chickasha, engr.

Okla., Oklahoma City—Oklahoma Co. made preliminary plans bridge over North Canadian River, near Council, west of here. $45,000. C. W. McFerron, Court House, engr.

Tex., Houston—Harris Co., c/o Judge, 1,600 concrete, steel vehicular bridge over San Jacinto River. $190,000. J. G. MacKenzie, co. bridge engr., and H. W. H. Zapp, co. engr., both Houston.

Tex., Kerrville—State Hy. Comm., R. F. Gentry, chn., Austin, John Creek and Rumble Creek bridges, approaches, Hy. N. 30, 10 mi. northwest of here, Kerr Co.

★**Washington** — State Hy. Dpt., Olympia, bridge over Washington Narrows. $1,603,000. Federal funds sought. B. Banta, Olympia, state hy. dir. CD 8/20—ENR 8/28.

BIDS ASKED

Bids Asked November 18

Iowa—State Hy. Comn., Ames, one 40x32 ft. I-beam bridge, rein.-con. stockpass, FA-557-E(1), Boone and Greene Counties; twin rein.-con. box culvert, FA-557-F(1), Boone and Dallas Counties; 67x22 ft. continuous rein.-con. slab bridge, County Trunk Rd. H, FSN-821; 4 rein.-con. box culverts, extens., 28x22

BRIDGES, etc. (Bids Asked, Cont'd.)

ft. concrete slab bridge; 96x22 ft. continuous slab bridge, County Trunk Rd., M, FSN-820 both Carroll Co.; 5 rein.-con. box culvert extens., Iowa 147, FA-862-A(1), Floyd Co.; 23 rein.-con. box culverts, exten., County Trunk Rd. T, FAS-730-A(1), Jasper Co.; one 50x22 ft. skew I-beam bridge, County Trunk Rd. A, over Calamus Creek, FM-36, 32x22 ft., concrete deck girder bridge, 50x22 ft., skew I-beam bridge, County Trunk Rd. B, FSN-744, foregoing Kossuth Co.; 2 rein.-con. box culvert exten., 1 rein.-con. pipe culvert, with flume outlet, County Trunk Rd. E, FSN-300-B, Madison Co.; 7 rein.-con. box culverts, exten., local road and county trunk roads N and A, FAS753-A(1), Marion Co. F. R. White, Ames, engr.

Bids Asked November 18

Maryland—State Roads Comn., Baltimore, six 20 ft. span, composite-timber concrete bridge on treated timber piles over Pocomoke River, Libertytown-Powellsville Rd., Contr. Wo-178-1-150 and Wl-145-1-150, Worcester and Wicomico Counties.

Bids Asked November 19

Kansas—State Hy. Dpt., Topeka, at Great Bend, Bridge 11.4, six 10x8x32 ft. rein.-con. box, FA 537F; Bridge 12.7, four 10x6x32 ft. rein.-con. box, FA 537F; Bridge 13.2, 55-65-55 ft. continuous I-beam spans, FA 537F; Bridge 10.7, five 10x8x32 ft., rein.-con. box, FA 537F; Bridge 10.4, four 9x7x32 ft., rein.-con. box culvert spans, FA 537F; Bridge 9.4, three 8x7x32 ft., rein. con. box, FA 537F; Bridge 8.9, five 10x6x32 ft., rein.-con. box, FA 537F; Bridge 8.6, three 8x8x32 ft., rein.-con. box, FA 537F; Bridge 8.1, three 8x6x32 ft., rein.-con. box, FA 537F; Bridge 7.7, four 10x7x32 ft., rein.-con box, FA 537F; Bridge 6.8, 30x38x30 ft., continuous slab span, FA 537F, all foregoing Barton Co.; Bridge 32.2, 55 ft., three 70 ft.-55 ft. continuous plate girder, FA 564B, Cowley Co. R. B. Wills, Topeka, engr.

Bids Asked November 20

Florida—State Road Dpt., Tallahassee, T. A. Johnson, chn., bridges over Four Mile and Ten Mile Creeks, Rd. 84, S.P. 5345(2), Calhoun Co.; bridge over Telogia Creek, Rd. 135, S.P. 5448(2), Liberty Co.; bridge between Jasper and Suwannee River, Rd. 116, S.P. 5035(2), Hamilton Co. J. H. Dowling, state hy. engr.

Bids Asked November 28

Missouri—State Hy. Comn., Jefferson City, two 35 ft., one 32 ft. and six 30 ft. rein.-con. deck girder spans, over MK & T RR tracks, in Windsor, Route 52, Proj. FAGM 133A3, two 40 ft., one 30 ft., rein.-con. deck girder span bridge over Tebo Creek, Windsor, Route 52, Proj. FGH 133 A4, both Henry Co.; two 10 ft. rein.-con. slab spans over Branch Sta. 67 plus road south of Montgomery City, Route H-SEC2-A, Montgomery Co. C. W. Brown, Jefferson City, engr.

Bids Asked December 1

†**Calif., South Gate**—U. S. Eng., 751 S. Figueroa St., Los Angeles, Firestone Blvd. Bridge, removing existing bridge, imprv. Los Angeles River channel, Inv. 509-42-115.

†**D. C., Wash.**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., concrete pedestrian tunnel, Naval Medical Center, Spec. 10679.

LOW BIDDERS

Connecticut—State Hy. Dpt., Hartford, Nov. 3, bridge approaches over Park River Conduit, Hartford, from A. Jarvis Co., Center St., Manchester. **$82,828.** CD 10/27—ENR 10/30.

Ill., Chicago—Cook Co., County Bldg., Springfield, Oct. 21, 1.055 mi. railroad crossings, Sects. 060-1010, 062-0303, 066-0203, 195-0606-15d, 196-2020, 236-0101, from Chicago Heights Coal Co., 27-19 Pl., Chicago Heights, **$78,842***** box culverts, Sect. 067-0405 and 069-0506, MFT, and rigid frame bridge Sect. 092-1212-MFT, from Davidson & Doctor, 143 St. and Union Sts., Orland Park, **$26,108** and **$26,967** respectively *** steel I-beam bridge, Sect. 134-0303-1-MFT, and steel I-beam subway, Sect. 162-1313.3-MFT, from T. McQueen, 1313 Circle Ave., Forest Park, **$65,947** and **$104,313** respectively. CD 10/16.

Iowa—State Hy. Comn., Ames, Nov. 4, culvert, bridge, local road, FAS 524A(1), Crawford Co., from Christensen Bros., Sergeant Bluff, Sioux City. **$30,858.** CD 10/24—ENR 10/30.

Louisiana—Dpt. Hys., Baton Rouge, Nov. 5, Keithville overpass of Southern Pacific RR., Caddo Parish, from Pittsburgh-Des Moines Steel Co., 1015 Tuttle St., Des Moines, Ia. **$161,642.** CD 10/16—ENR 10/23.

Michigan—State Hy. Dpt., Capitol, Lansing, Nov. 5, five 45 ft. rolled beam spans, rein.-con., steel bridge, approach grading, Allegan Co., from C. Goodwin, 552 Ely, Allegan, **$62,902**; 3 rolled beam spans, rein.-con., steel bridge, Wexford Co., from Peninsular Constr. Co., 127 Federal Sq. Bldg., Grand Rapids, **$45,109.** CD 10/29.

New York—State Dpt. P. Wks., Albany, Nov. 6, eliminating grade crossing Chemung and Steuben Counties, from H. E. Bunce, Waverly, **$185,318***** bridge, 0.104 mi. Suffolk Co., from Karlson & Reed, Inc., Hicksville, **$38,892***** Hudson River, bridge, Mechanicville, from F. E. Antolick, Schaghticoke, **$218,218.** CD 10/15—ENR 10/23.

South Carolina—State Hy. Dpt., Columbia, Oct. 28, 766 ft. rein.-con., structural steel bridge, Berkeley Co., from E. C. Bridges, Heath Springs. **$111,549.**

Texas—D. C. Greer, engr. State Hy. Dpt., Austin, Oct. 29, widening bridge over Nolan Creek, Bell Co., from Wallace & Bowden, 5513½ E. Grand Ave., Dallas, **$29,055** est. **$27,276**; bridge over Adams Bayou, Orange Co., from C. F. Gorman, Marshall, **$80,319** est. **$82,708.** CD 10/21.

CONTRACTS AWARDED

Arkansas—State Hy. Dpt., Little Rock, concrete substructure, 2 abutments, 7 piers for 571 ft. bridge, Lee Co., to Vincennes Steel Corp., Vincennes, Ind., **$71,766** est. $80,000; 4,214 cu. yd. earth excav. on concrete substructure, 33 pile bents, 7 piers for bridge across Saline River and relief bridge, Bradley Co., to S. M. Dixon, Warren, **$107,698,** est. $100,000. Bids 10/30. CD 10/23.

★**Fla., Miami**—Bd. Comrs. Dade Co., Miami, filled causeway sections, part of Biscayne Causeway over Biscayne Bay, to Arundel Corp., Pier 2, Pratt St., Baltimore, Md. **$630,505.** Bids 10/31. CD 10/21—ENR 10/23.

Mass., East Boston (sta. Boston)—P. Wks. Dpt., City Hall Annex, Boston, Meridian St. Bridge addn. over Chelsea Creek, to Marinucci Bros. & Co., 51 Ceylon St., Dorchester, Boston. **$29,380.**

New York—Chief Engineer Dpt. P. Wks., Albany, raising Barge Canal Bridge E-42, W. Schuyler Rd., Herkimer Co., to Harrison & Burrowes, Inc., 507 Summit Ave., Jersey City, N. J. **$59,767.** Bids 9/24, awarded 10/6. CD 9/2—ENR 9/4.

O., New Philadelphia—Tuscarawas Co., 100 ft. bridge over Little Stillwater Creek, joining Logan St., Dennison, and E. First St., Uhrichsville, to Menuez & Skemp Co., Millersburg. **$26,302.** Est. $25,000. Awarded 10/31.

†**Tex., Fort Worth**—Tarrant Co., c/o D. Miller, judge, 2 access bridges, White Settlement Rd., Tex. 41-277, to Standard Paving Co., Majestic Bldg. **$203,236. DPW.** H. Cook, Court House, engr. CD 10/21—ENR 10/23.

★**Virginia**—Dpt. Hys., Richmond, bridge, approaches, 1 mi. Stafford and Spotsylvania Counties, to Bowers Constr. Co., Box 1706, Raleigh, N. C., **$555,060.** CD 11/3—ENR 11/6, under LB.

Ont., Niagara Falls—Canadian National Rys., B. Wheelwright, ch. engr. (central region) Union Station, Toronto, partial reconstruction piers and abutments, International Ry. bridge, to Durite Co. of Canada, Ltd., 779 St. Antoine St., Montreal, Que. Est. **$30,000.**

Quebec—Province of Quebec, Quebec City, concrete, steel bridge, Temiscaminque, to J. Houle, Notre Dame St., St. Edouard de Beauce. Est. **$30,000.** Dpt. Roads, Quebec City, engrs.

STREETS AND ROADS

BIDS ASKED

Bids Asked November 17

Connecticut—State Hy. Dpt., W. J. Cox, comr., Hartford, traffic bound graveling, 8,961 ft. Lake and Carmel Hill Rds., Bethlehem; 7,779 ft. Parker, Blanton, Coburn and Hollow Rds., Sherman; RBR gravel, 2,585 ft. Singleton Rd., approaches to Morey Rd. and Nutmeg Lane, Chaplin; colprovia asphaltic concrete, 1,530 ft., Main St., Derby; concrete curbing, 850 ft. Barnum Ave. Cut-Off, at Scale Pit, Stratford; concrete park curb, elimination cross overs median strip, Merritt Pkwy., Greenwich, Stamford, New Canan, Norwalk, Westport, Fairfield, Trumbull; removing timber deck, installing 3½ in. concrete filled grill steel floor, Connecticut River Bridge, Old Lyme-Old Saybrook; relocating, replacing part WW sys. on approaches to Thames River Bridge, New London.

Bids Asked November 18

†**Ark., Marked Tree**—Farm Security Admin., Donaghey Bldg., Little Rock, 1 mi. new road.

Illinois—State Dpt. P. Wks. & Buildings, Div. Hys., Springfield, grading, curbing, guttering, concrete paving 3.57 mi. Sect. S-R, F.A.P. 133 D, SB.1., Rte. 125, Dist. 6, Sangamon Co.; grading, concrete paving, etc. 7.05 mi. Sect. 21A, F.A.S. Proj. 54a, F.A.S. Rte. 667A, Dist. 5, Coles and Douglas Counties; grading, concrete paving 4.72 mi. Sect. 1A, F.A.S. Proj. 37A, F.A.S. Rte. 62, Dist. 2, Stephenson Co.; traffic control sys. for intersection of S.B. 1, Rte. 12 and Kingshighway, near E. St. Louis, Sect. 33TL, S.B. 1, Rte. 12, Dist. 8, St. Clair Co.; oiled earth surfacing 6.79 mi. Sects. 34 Q and 35 Q, F.A.S. Proj. 38A and 38B, F.A.S. Route 867, Dist. 9, Perry and Franklin Counties; I-beam superstructure for Salt Creek bridge on relocation of S.B.1, Rte. 4 (U.S. Rte. 66) south of Lincoln. Sect. 23 X-1 E, S.N.-F. A. Proj. 26 D, F.A. Rte. 5, Dist. 6, Logan Co. M. J. Fleming, Centennial Bldg., Springfield, asst. ch. hy. engr.

Iowa—State Hy Comn., Ames, grading 4.552 mi. Iowa 17, FA-557E(1), Boone and Greene Counties; 4.395 mi. Iowa 17, FA-557-F(1), Boone and Dallas Counties; 4.109 mi. County Trunk Rd. H, FSN-821, 2.977 mi. County Trunk Rd. M, FSN-820-A; Carroll Co.; 6.308 mi. Iowa 147, FA-862-A(1), Floyd Co.; 8.268 mi. County Trunk Rd. T, FAS-730-A(1), Jasper Co.; 2.4p5 mi. County Trunk Rd. E, FSN-300-B, Madison Co.; 3.976 mi. local road and county trunk roads N and A, FAS-753-A(1), Marion Co.; gravel surfacing 4.109 mi. County Trunk Rd. H, FSN-821; 2.977 mi. County Trunk Rd. M, FSN-820-A, both Carroll Co.; 8.268 mi. County Trunk Rd. T, FAS 730-A(1), Jasper Co.; 2.566 mi. local road FM-13; 2.253 mi. local road FM-14; 6.176 mi. local road, FM-15, 3.162 mi. local Rd., FM-17, all foregoing Woodbury Co. F. R. White, Ames, engr.

Maryland—State Roads Comn., Baltimore, grading, drainage, concrete surfacing 0.74 mi. Westover-Pocomoke Rd., Contr. S-124-1-111, Somerset Co.

★**Ohio**—State Hy. Dpt., Columbus, roadside imprv. 4.93 mi. Sects. B and C of SH 7, US 52, Adams Co., $18,850; grading, drainage structures, concrete paving, 2.332 mi. Sects. A, B, and Rome of SH 7, US 52, Adams Co., $88,300; 0.433 mi. Sect. East Palestine, of SH 89, Columbiana Co., $38,940; 1.701 mi. Sect. Marble Cliff and A of SH 910, US 33, Franklin Co., $191,500; grading, drainage structures, asphaltic concrete paving, concrete slab bridge, concrete abutments over Rocky Run, Sect. C and Eaton of SH 210, US 127, Preble Co., $93,900; grading, drainage structures, asphaltic concrete paving, 1.237 mi. Sect. Medina of SH 139, US 42, Medina Co., $105,500; 0.198 mi. Sect. C of SH 13, Ashtabula Co., $35,500; grading, drainage structures, concrete and asphaltic concrete paving, continuous concrete slab bridge, continuous steel beam bridge, concrete deck, substructure, Sect. F of SH 337, Licking Co., $90,100; grading, drainage structures, asphaltic concrete paving, bituminous macadam, premixed widening, cold-mixed, cold-laid asphaltic concrete resurfacing, 3.091 mi. Sect A of SH 516, Mahoning Co., $73,200; grading, drainage structures, widening, asphaltic concrete resurfacing, widening 3 concrete slab bridges, 4.733 mi. Sect. O of SH 353, US21, Noble Co. $124,500; grading, widening, asphaltic concrete resurfacing, 1.041 mi. Sects. West Alexandria, E and F, of SH 28, US 35, Preble Co., $20,000; concrete and waterbound macadam widening, bituminous concrete resurfacing 1.971 mi., Sect. Mingo Junction and Steubenville and Q of SH 7, Jefferson Co., $45,200; sodium vapor lighting sys. 1.315 mi., part of Sections Valley View, Independence and Cuyahoga Heights of SH 17 and 460, US 21, Cuyahoga Co., $20,500.

Bids Asked November 19

Kansas—State Hy. Dpt., Great Bend, resurfacing material 5.2 mi. K 5873; 12.9 mi. K 5537 AB, both Sedgwick Co.; 9.599 mi. K 5534 AB; 5.772 mi. K 5533, both Cowley Co.; 24.036 mi. K 5532; 19.01 mi. K 5531, both Butler Co.; 6.8 mi. K 5536, Rice Co.; 6 mi. K 5538, Sumner Co.; grading 8.413 mi. FA 537F, Barton Co. R. B. Wills, Topeka, engr.

Bids Asked November 20

New Hampshire—State Hy. Dpt., Concord, 4 in. gravel on gravel surfacing 1.231 mi. Central Rd., Sullivan Co. $55,000. J. O. Mortum, Concord, engr.

Bids Asked November 21

New Jersey—E. D. Sterner, comr. State Hy. Dpt., Trenton, bituminous concrete, on penetration macadam paving, rein.-con. paving, etc. 1.269 mi. Route 35, Sect. 3SA, Morgan to Laurence Harbor, Middlesex Co.

Bids Asked November 26

Louisiana — State Dpt. Hys., W. Prescott Foster, dir., Baton Rouge, bituminous surface treating 7.679 mi. Route 1075, Slidell-Intersection Route C-1334 Hy., S.P. 913-03-11, St. Tammany Parish.

Bids Asked November 28

Missouri—State Hy. Comn., Jefferson City, grading, concrete surfacing 3.859 mi. Republic to Billings Rd., Route 60, Sec. 23, Christian Co.; 3.774 mi. Route 60, Sec. 24, same road, Greene Co.; 1.611 mi. Waynesville-Route 17 Rd., Route 66-SN-FA 176-A(2); 3.196 mi. Route 17-Route 28RD, Route 66-SN-FA 176-B(3), all foregoing Pulaski Co.; surfacing 3.079 mi. Route 47-Jeffriesburg Rd., Route B.B., Sec. 1A, Franklin Co.; grading, gravel surfacing West Plains-Lanton Rd., Route A-FAS 66-B(1), Howell Co.; producing, hauling and windrowing gravel or crushed stone 2.276 mi. Route 63-Belle Rd., Route 28, Sec. 13; 2.92 mi. same road, Route 28, Sec. 14; 2.993 mi. same road, Route 28-Sec. 15-A; 3.995 mi. same road, Route 28, Sec. 16-A, all foregoing Maries Co.; grading, constructing roadside park 0.332 mi. road east of County Route 14E, Route 40, Proj. FA 352 E2, Jackson Co.; grading, culverts 0.076 mi. Lisbon-Route 87 Rd., Route 5K, Sec. 1B, Howard Co.; concrete surfacing 4.539 mi. Pickering-Iowa State Line Rd., Route 27, Proj. Sec. 3, Nodaway Co.; 0.284 mi. road in Windsor, Route 52, Proj. FAGM 133 A3; 0.285 mi. same road, Route 52, Proj. FAGH 133 A4, both Henry Co.; 1.692 mi. road from Route SA, N and S, Proj. SN FA 130 B2, Route 69, Harrison Co.; 3.939 mi. road from Pickering to Iowa State Line, Route 27, Proj. Sec. 2, Nodaway Co.; 0.327 mi. road in Windsor, Route 52, Proj. FA 133 A5, Henry Co. C. W. Brown, Jefferson City, engr.

Bids Asked December 12

★**Pennsylvania** — State Hy. Dpt., I. L. Hughes, secy., Harrisburg, rein.-con. paving, 8 rein.-con. structures, I-beam bridge, bituminous on native stone type B or crushed aggregate surfacing 43.548 ft. Legislative Route 168, Sec. 8-A, Traffic Route 611, Stroudsburg Boro, Stroud, Hamilton and Pocono Twps., Monroe Co., over $500,000; rein.-con. paving, 7 rein.-con. structures, plate girder bridge, shoulder grading, bituminous on na-

STREETS, etc. (Bids Asked, Cont'd.)

tive stone type B or crushed aggregate surfacing 36,168 ft. Legislative Routes 25, Sects. 4, 5 and 6, 25, Spur, 25 Spur E, 24 and 54062, Traffic Routes 11 and 15, Penn and Monroe Twps., Selinsgrove and Shomakin Dam Boros, Snyder Co., over $500,000; rein.-con. paving, rein.-con. structure, bituminous on native stone surfacing 6,883 ft. Legislative Route 187, Sec. 7-B, Traffic Route 22, Franklin Twp., Westmoreland Co., over $25,-000; rein.-con. paving, 2 rein.-con. structures, bituminous on native stone type B or crushed aggregate surfacing 27,769 ft. Legislative Route 157, Sect. 15, Traffic Route 222, Upper and Lower Macungie and South Whitehall Twps., Lehigh Co., over $25,000. T. C. Frame, c/o owner, engr.

Bids Asked

New Jersey—State Hy. Dpt., Trenton, rejected bids Oct. 31, paving, etc. 2.846 mi. Route 28, Sect. 22 A, Hunterdon Co. Will readvertise. CD 10/15—ENR 10/23.

Wisconsin—State Hy. Comn., Madison, rejected bids Oct. 28, imprv. 8.649 mi. Westby-Black River Falls (Cashton-Sparta Rd.), Monroe Co. CD 10/30—ENR 11/6.

LOW BIDDERS

Arizona—State Hy. Comn., Phoenix, Oct. 28, imprv. 3.8 mi. Greenlee Co., from G. W. Orr, El Paso, Tex., **$154,458.** CD 10/16.

Arizona—State Hy. Comn., Phoenix, Oct 31, imprv. 4 mi. Flagstaff-Ft. Valley Hy., FAS 24-A(1), from Packard Contg. Co., 412 Luhrs Tower Bldg., Phoenix. **$62,058.** CD 10/21—ENR 10/23.

California—C. H. Purcell, engr., State Hy. Dpt., Sacramento, Oct. 29, imprv. 3.2 mi. San Mateo Co., from Union Paving Co., 310 California St., San Francisco, **$324,547;** 1 mi. Shasta Co., from Poulos & McEwen, P. O. Box 1017, Sacramento, **$25,458.** CD 10/14—ENR 10/16.

California—State Hy. Dpt., 808 State Bldg., Los Angeles, Nov. 6, imprv. 3 mi., Los Angeles Co., from J. E. Haddock, Ltd., 3578 E. Foothill Blvd., Pasadena. **$260,074.** CD 10/22.

Colorado—State Hy. Dpt., Denver, Oct. 28, imprv. 1.192 mi. Rio Blanco Co., from M. J. Sears, 509 15 St., Denver. **$51,718.** CD 10/17.

Colorado—State Hy. Dpt., Denver, Oct. 31, imprv. 2.474 mi. Grand Co., from Switzer Constr. Co., University Bldg., Denver. **$199,395.** CD 10/27.

Colorado—State Hy Dpt, Danver, Nov. 4, imprv. 9.223 mi. Grand Co., from J. H. and N. M. Monaghan, 332 S. Race St., Denver. **$88,349.** CD 10/27.

Colorado—State Hy. Dpt., Denver, Nov. 6, imprv. 0.409 mi. hy., structures, Logan and Washington Counties, from Lawrence Constr. Co., 112 S. Elati St., Denver, **$28,508;** imprv. hy., 2 structures, 1.559 mi. Logan Co., from F. M. Kenney, 56 Steele St., Denver. **$114,766.** CD 10/29.

Connecticut—State Hy. Dpt., Hartford, Nov. 3, 7.500 ft. grading, drainage Hartford By-Pass, Rt. 5, Folly Brook Blvd., Wethersfield, from L. Suzio Constr. Co., State and Brooks Sts., Meriden. **$71,878.** CD 10/27—ENR 10/30.

D. C., Wash.—Dist. Comrs., Dist. Bldg., grading Dalecarlia Parkway N.W., between Loughboro Rd. and Mass. Ave., etc., from J. O. and C. M. Stuart, 4821 Bethesda Ave., Bethesda, Md. **$55,600.**

Idaho—A. C. Merritt, comr. P. Wks., Boise, Oct. 31, imprv. 2.8 mi. Bonner Co., from C. A. Power, E 27 Eighth St., Spokane, Wash., **$34,680;** 1 mi. hy., Kellogg, from G. D. Lyon, Hutton Bldg., Spokane, Wash., **$50,914.** CD 10/21—ENR 10/23.

Ill., Belleville—City and St. Clair Co., Oct. 16, imprv. 0.7596 mi. Sect. 184-MFT and Sect. 3-CS, from Hoeffken Bros., Belleville. **$46,932.** G. H. Baker, Centennial Bldg., Springfield, state engr. co. roads and city streets.

Ill., Chicago—Cook Co., County Bldg., Springfield, Oct. 21, imprv. 0.4796 mi. Sect. 121-0808-MFT, from Midwest Constr. & Asphalt Co., 231 S. LaSalle St., **$49,214.** CD 10/16.

Iowa—State Hy. Comn., Ames, Nov. 4, imprv. 7.603 mi. Crawford Co., from Frank Eblen Constr. Co., Cumberland, **$29,242.** CD 10/24—ENR 10/30.

Kentucky—Dpt. Hys., Frankfort, Oct. 31, imprv. 0.937 mi. Madison Co., from O. V. Arnett, Berea, **$99,447.** CD 10/16—ENR 10/23.

Louisiana—State Dpt. Hys., Baton Rouge, Nov. 5, imprv. 10.847 mi. Union Parish, from T. W. Kleinpeter, 4047 Hatcher Dr., Baton Rouge. **$166,963.** CD 10/14—ENR 10/16.

Maryland—State Roads Comn., Baltimore, Oct. 28, imprv. 1.704 mi. Prince George Co., from Reliable Contg. Co., Middle River, **$40,-994.** CD 10/22.

Michigan—State Hy. Dpt., Lansing, Oct. 30, grading, concrete paving 1.14 mi. S.P.D.P.Wks. 82-93-C-1, Docket Mich. 20-173-H-1 on M-56, Wayne Co., from Denton Constr. Co., General Motors Bldg., Detroit. **$166,699.**

★**Michigan**—State Hy. Dpt., Lansing, Nov. 5, imprv. 1.191 mi. Ionia Co., from L. W. Edison, 924 Floral Dr. S.E., Grand Rapids, **$97,260*****15.456 mi., Mecosta and Montcalm Counties, from P. C. Miller, Sparta, **$49,627*****1.91 mi. Arenac Co. and 7.954 mi. Ogemau Co., from Johnson & Greene, Whitmore Lake, **$42,122** and **$159,058** respectively***3.048 mi. Saginaw Co., from West Shore Constr. Co., Zeeland, **$117,905;** 0.399 mi. Emmet Co., from A. W. Hodgkiss Co., Box 311, Petoskey, **$28,-327*****3.815 mi. Huron Co., from J. H. Baker & Sons Co., Boynton Blk., Port Huron, **$116,-438*****6.25 mi. Washtenaw Co. and 0.527 mi. Calhoun Co., from Garavaglia, 4514 Burns Ave., Detroit, **$59,022** and **$48,032** respectively. CD 10/28—ENR 10/30.

Michigan—State Hy. Dpt., Escanaba, Nov. 5, stabilized aggregate surfacing, 7.532 mi. M-17-29C-3, M-17-43C-3, M-49-27C-3, Chippewa and Mackinac Counties, from Alpine Excavating Co., Box 337, St. Ignace. **$82,997.** CD 10/29.

Minnesota—State Hy. Dpt., St. Paul, Oct. 31, imprv. 4.9 mi. hy. S.P. 13-6-03, from Alley & Son and McKibbin Bros., Roseau, **$34,800*****5.9 mi. S.P. 4602-02, from W. H. Noel Co., Jamestown, N. D., **$58,332*****7.1 mi. S.P. 5307-02, from D Gustafson, Sioux Falls, S. D., **$55,816*****1.2 mi. S.P. 7101-12, from A. T. Nolan, 20 N. 2 St., Minneapolis, **$60,267.** Rejected bids Oct. 31., imprv. 3.1 mi. S.P. 3307-06, 12.7 mi. S. P. 38-021-04 and 9.8 mi. S.P. 5005-21, S.P. 5005-20 and S.P. 2312-02. CD 10/16—ENR 10/23.

Missouri—State Hy. Comn., Jefferson City, Oct. 24, imprv. 4.015 mi. Route 28, Sect. 20-C, 4.43 mi. Route 28, Sect. 21, Gasconade Co., from American National Constr. Co., 5222 McKissock Ave., St. Louis, **$51,976** and **$58,939,** respectively. State Hy. Comn., Jefferson City, rejected bids Oct. 24, imprv. 1.888 mi. Madison Co.; 4.393 mi. Wayne Co.; 0.076 mi. Howard Co. CD 10/8—ENR 10/16.

New Jersey—E. D. Sterner, comr. State Hy. Dpt., Trenton, Nov. 7, imprv. 1.98 mi. Salem Co., from Versaggi Constr. Co., Wildwood, **$134,527.** CD 10/21—ENR 10/23.

†New Mexico — Pub. Roads Admin., Santa Fe, Oct. 31, imprv. 1.767 mi. Catron Co., from Brown Bros., Albuquerque. **$30,821.** CD 10/16.

New York—State Dpt. P. Wks., Div. Hys., Albany, Nov. 6, imprv. 5.63 mi. Albany Co., from Arute Bros., Inc., 560 Main St., New Britain, Conn., **$477,582.** CD 10/15—ENR 10/23 under Bridges.

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Nov. 6, imprv. Blake Ave., from Pomonok Asphalt Paving & Material Co., 1217 Grand Ave. **$27,827.** CD 10/28—ENR 10/30.

N. Y., Kew Gardens—President Queens Boro, Queens Boro Hall, Oct. 30, 120-55 Queens Blvd., recut granite block and new granite block repaving Crescent St. also recut granite blocks and sheet asphalt on new or existing concrete fdn. Thomason Ave., from Trifogolio Constr. Co., Inc., Box 146, West New Brighton, S. I., **$26,555** and **$51,156** respectively. CD 10/21—ENR 10/23.

★**Pennsylvania**—State Hy. Dpt., Harrisburg, Nov. 7, imprv. 32,427 ft. hy., incl. 4 rein.-con. structures, Lebanon and Berks Counties, from Fred Berlanti & Son, Inc., 15 Oakland Ave., Harrison, N. Y. **$583,243.** CD 10/28—ENR 10/30.

★**Pennsylvania**—State Hy. Dpt., I. L. Hughes, secy., Harrisburg, Nov. 7, imprv. 44,537 ft. Crawford Co., from County Constr. Co., Carnegie, **$302,384*****13.179 ft. Elk Co., from B. B. Constr. Co., Philipsburg, **$210,076*****6,233 ft. Delaware Co., from Dalton Bros., Inc., Paoli, **$128,500.** CD 10/28—ENR 10/30

★**South Carolina**—State Hy. Dpt., Columbia, Oct. 28, imprv. 2.861 mi. Berkeley and Charleston Counties, from W. F. Bowe, Jr., Augusta, Ga., **$88,602*****1.438 mi. Charleston Co., from Shell Producers Co., Tampa, Fla., **$78,194*****5.068 mi. Darlington and Marlboro Counties, from R. Lee, Inc., Manning, **$236,047*****9.462 mi. Kershaw and Sumter Counties, from American Constr. Co., Columbia, **$72,715*****2.222 mi. Oconee Co., from Suber & Co., Whitmire, **$30,187*****14.515 mi. Saluda Co., from H. M. Taylor, Ridgeland, **$164,117*****0.345 mi. Spartanburg Co., from Pennell & Harley, Inc., Spartanburg, **$28,815*****8.209 mi. Williamsburg Co., from H. M. Taylor, Ridgeland, **$93,340.** CD 10/16.

★**Texas**—D. C. Greer, engr. State Hy. Dpt., Austin, Oct. 29, imprv. 20.223 mi. Ochiltree and Lipscomb Counties, from J. E. and H. Barnhill, Turkey, **$219,084,** est. $234,650*** 30.277 mi. Borden Co., and 8.544 mi. Atascosa Co., from E. Loyd, Box 1077 Fort Worth, **$230,746** and **$57,431** respectively, est. $284,146 and $67,246 respectively***4.177 mi. Orange Co., from O. M. Lander, Waxahachie. **$74,484,** est. $67,490***8.712 mi. Gillespie Co., from Vilbig Constr. Co., 817 Bourbon St., Dallas, **$109,385,** est. $125,848***6.931 mi. Tarrant and Wise Counties, from Spencer Constr. Co., Avord, **$50,557** est. $61,000***4.248 mi. Harris Co., from R. B. Smith, Inc., 2301 Southgate St., Houston, **$104,998,** est. $89,777***5.881 mi. Kimble Co., from M. E. Ruby and Wallance & Bowden, 813 Brown Bldg., Dallas, **$151,991,** est. $142,732***4.853 mi. Smith Co., from Harrison Eng. & Constr. Corp., 903 Fairfax Bldg., Kansas City, Mo., **$163,475,** est. $169,389*** 6.728 mi. Lamar Co., from Austin Road Co., 1813 Clarence St., Dallas, **$217,986,** est. $218,-273***5.776 mi. Comanche and Erath Counties, from Thomas & Ratliff, Rogers, **$57,452,** est. $68,565***2.632 mi. Red River Co. and 6.898 mi. Cherokee Co., from E. W. Hable, Corsicana, **$45,303** and **$46,569** respectively, est. $44,249, and $53,749 respe[illegible] mi. Lee Co., from J. W. Perry, [illegible] Bldg., San Antonio, **$56,172,** est [illegible] 7.49 mi. Bell Co., from Public [illegible] Denton, **$40,988,** est. $45,598. C[illegible] 10/23.

CONTRACTS AWARDED

Arkansas — State Hy. Dpt., [illegible] imprv. 5.1 mi. Ashley Co., to W[illegible] Canton, Miss. **$48,414.** Est. $[illegible] 10/30. CD 10/23.

Ark., Crossett—G. R. Lessor, mi[illegible] streets. **WPA. $50,000.**

California—State Hy. Dpt., at [illegible] Purcell, hy. engr., Los Angeles, [illegible] protection along Route 79, Ventur[illegible] 7.49 mi. Bell Co., from Public [illegible] account. Over **$25,000.** Bids Oct. [illegible] CD 10/21—ENR 10/23 under LB

†Calif., Camp Roberts—Con. Q.M. [illegible] ing and approx. 700,000 sq. yd. in[illegible] and parade grounds, to Oilfields Tru[illegible] Union Ave., Bakersfield. **$77,000.**

†Ga., Camp Stewart—Con. Q.M. [illegible] graded access roads, 3 bridges, [illegible] Foster & Co., Decatur, Ga. **$135,832.**

Ill., Decatur—Macon Co., relocating, [illegible] ing 2¾ mi. Lake Shore Dr., to Fife & [illegible] Decatur. **$60,000.** Bids 11/3. [illegible] ENR 10/23.

★**Ia., Council Bluffs** — Pottawattam[illegible] imprv. roads. **WPA. $887,079.** D. [illegible] Blake, co. engr.

Ia., Cresco — Howard Co., impr[illegible] **WPA. $143,000.** L. L. Lowry, co. engr.

†Md., Fort George G. Meade — Con. Q.M. roads, to Baltimore Asphalt Block & Tile, 1320 N. Monroe St., Baltimore, **$66,363.** Awarded 10/21.

Massachusetts—Dpt. P. Wks., H. L. McDonald, comr., 100 Nashua St., Boston, bituminous macadam surfacing 41,000 sq. yd. Hale St., Beverly, to Welch & Mowatt, 15 Front St., Salem. **$26,421.** Bids 10/28, CD 10/27.

N. J., Atlantic City—Concrete curbs, gutters, storm sewer, catch basins, manholes, etc., **WPA. $61,234.** G. R. Swinton, 930 Atlantic Ave., Atlantic City, WPA engr.

†N. J., Bellmawr—Federal Works Agency, 18 and F Sts. N.W., Wash., D.C., 34,000 sq. yd. 6 in. penetration macadam paving streets in defense housing project. **WPA.** $51,000. G. R. Swinton, 930 Atlantic Ave., Atlantic City, WPA and owner's engr.

N. J., Camden—Grading, concrete sidewalks, **WPA. $55,500.** G. R. Swinton, 930 Atlantic Ave., Atlantic City, WPA engr.

N. J., Closter—Grading, 4 in. penetration macadam surfacing, concrete curbs, storm sewers, etc., **WPA. $50,896.** C. Malstrom, Orange and N. 6 St., Newark, WPA engr.

N. J., Fairview—Boro. grading, 7 in. penetration macadam surfacing, concrete gutters, Park Ave., Cliff St. **WPA.** $54,837. C. Malstrom, Orange and N. 6 St., Newark, WPA engr.

N. J., Garfield—Grading, 7 in. penetration macadam surfacing, concrete curbs, etc., Palisade Ave., Bergen St., etc. **WPA.** $50,500. C. Malstrom, Orange, and N. 6 Sts., Newark, WPA engr.

N. J., Nutley—Grading, bituminous macadam paving, **WPA. $55,000.** D. Shepherd, town engr.

N. J., Oceanport—Boro Council, improve Main St., Wolf Hill, Port-au-Peck Aves., process roads to Fort Monmouth. **WPA. $64,199.**

N. J., Orange—Concrete curbs, sidewalks, storm sewers, manholes, etc., **WPA.** $51,000. K. Crane, town engr.

N. J., Secaucus—Grading, penetration macadam and concrete paving. **WPA.** $69,328. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

N. J., Union City—Grading, asphalt on concrete surfacing, concrete curbs, Summit Ave., from 22 to 32 Sts. **WPA. $72,856.** C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

North Dakota—State Hy. Dpt., Bismarck, imprv. 17.6 mi. Griggs and Steele Counties, to M. B. Monson, Bismarck, **$122,178*****5.2 mi. Stutsman Co., to Northern Improvement Co., Fargo, **$174,485*****16 mi. McHenry, Pierce, Sheridan and Wells Counties, to Inland Constr. Co., 3867 Leavenworth, Omaha, Neb., **$86,308.** Grand total $372,771. CD 10/22

†Oregon—Pub. Roads Admin., 316 New Post Office Bldg., Portland, imprv. Kalmath Falls-Lakeview Hy., Fremont National Forest, Lake Co., to Sam Orino, foot of S.W. Porter St., Portland, **$185,126.** Bids 11/5, awarded 11/6. CD 10/28—ENR 10/30.

Pa., Kane—Boro Council, J. M. Paisley, boro secy., bituminous materials and stone paving 1 mi. streets, repairs, resurfacing streets, own forces. **$40,000.** G. W. Folke, boro engr.

Pa., Johnstown — Widening portion Horner St., sidewalks, Bedford St., bituminous materials paving several alleys, own forces. **$25,580.** H. L. Wilson, city engr.

Tenn., Savannah — Imprv. streets. **WPA. $51,904.**

Tex., Fort Worth—Tarrant Co., c/o Judge, reconstructing, imprv. roads. **WPA.** $73,035.

STREETS, etc. (Contracts Awarded, Cont'd.)

Tex., Kerrville—Kerr Co. and State Hy., Austin, surfacing, etc., **WPA. $72,117.**

Tex., Kilgore—Grading, concrete guttering, curbing, bituminous surfacing, **WPA. $71,299.**

Tex., Fort Worth—S. H. Bothwell, city mgr., widening, paving Hamphill St., to Joe Adams & Son, 3416 W. Vickery St. **$32,911. (Correction**—contractor.) CD 9/18—ENR 9/25 under CA.

Tex., Port Arthur—Grading, surfacing, **WPA. $59,235.** J. B. Converse Co., Port Arthur, engrs.

†Vt., Fort Ethan Allen—Con. Q.M., surfacing parking areas, to Warren Bros. Roads Co., 38 Memorial Dr., Cambridge, Mass., **$58,365.** Bids 10/24.

Wis., Superior—Douglas Co., imprv. roads, **WPA. $253,473. C. Hanson, Superior, engr.**

EARTHWORK, WATERWAYS

PROPOSED WORK

Calif., Alameda—Completing plans reconstructing levee, west end of Bay Farm Island, involving 2,200 tons rock rill.

†Idaho—U. S. Eng., Pittock Blk., Portland, Ore., deepening Snake River to uniform 2 ft. depth at low water, near Lewiston. 80,000.

†Illinois—U. S. Eng., 433 W. Van Buren St., Chicago, surveys flood control project along Mackinaw River, Tazewell Co.

†Illinois—U. S. Eng., P.O. Box 59, Louisville, Ky., indefinitely postponed bids to have been opened Oct. 31, flood protection work, Mounds and Mound City, Cache River Diversion. CD 10/14—ENR 10/16.

†Illinois—U. S. Eng., 816 Court House and Custom House, St. Louis, Mo., new bids soon $10,000 cu. yd. earthwork in rebuilding, enlarging 3.5 mi. levees, constructing core wall, altering existing drainage structure, etc. in East Side Levee & Sanitary Dist., Madison and St. Clair Counties on Mississippi River. CD 7/11—ENR 7/17 under CA.

Kan., Hutchinson—Emergency construction, repairs drainage canal, farm dikes, barricades for flood control. **$30,367.**

†Md., Hyattsville—Washington Suburban Sanitary Comn., H. R. Hull, ch. engr., Owens Ave., rejected bids Oct. 22, constructing Brighton Dam and 1.1 mi. gravel approach roadway on Patuxent River, 24 mi. north of Wash., D. C., Contr. 127-W Ambursen Eng. Co., 295 Madison Ave., New York, N. Y., consult, engrs. CD 9/24—ENR 10/2.

Mass., Worcester—H. Green, comr. P. Wks., City Hall, concretee dam, Quinapoxet Reservoir. Over $15,000. E. R. Perry, city engr.

Nebraska—Furnes Co. and Beaver-Sappa Soil Conservation Dist., Beaver City, 25 dams for flood control irrigation ditches. $61,251.

New Jersey—State Bd. Commerce & Navigation, 1060 Broad St., Newark, creosoted timber groins, Raritan Bay, East Keansburg. $75,000. C. W. Staniford, 1060 Broad St., Newark, engr.

N. J., East Keansburg—Middletown Twp. Com., jetty. $80,000.

N. J., Newark—Essex Co., Hall of Records, excavating 70,880 cu. yd. earth from channel Rockaway & Passaic River, $46,687. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

†New York—U. S. Eng., Whitehall Bldg., 17 Battery Pl., New York received no bids Oct. 31, dredging, disposing 71,315 cu.yd. place measurement, material except ledge rock from English Kills, Newton Creek. CD 10/1—ENR 10/9.

N. Y., Jamestown—Crescent Tool Co., Foote Ave. and Harrison St., straightening course of Chadakoin River, rear of plant. $15,000.

O., Mt. Orab—Dpt. Conservation, State Office Bldg., Columbus, artificial lake, Pike and Green Twps., near here, spillways, dams. $47,000.

Okla., Oklahoma City — Made preliminary plans, levee sys. for flood control, along North Canadian River, from Walker St. to May Ave. $45,000. R. Lee, city engr.

Pa., Wilkes-Barre—Raising concrete walls along Solomons Creek. $28,500. C. B. Walker, city eng.

Tex., Center — Panola-Shelby Conservation Dist., Center, soil conservation project, terracing, levees, ditching, etc. $200,000.

Tex., Edinburg—Hidalgo Co. Water Control & Imprvt. Dist. 15, c/o Bentsen Bros., Mission, grubbing, clearing, filling in, fencing, drainage. $100,000.

Tex., Edinburg—Santa Cruz Farms, Edinburg, irrigation sys. for 11,000 acres. $360,000.

★**Tex., Houston**—Harris Co. Flood Control & Imprvt. Dist., Houston, bids soon, Unit 2, earthen and concrete flood control dam, Addicks, near here, $2,000,000, Unit 1, earth and rein.-con. Barker Dam for flood control, Barker Twp., near here, $3,500,000. CD 8/15—ENR 8/21.

†Utah — Bureau Reclamation, Provo, bids soon 3.4 mi. concrete pipe aqueduct between south portal Draper-Alpine Tunnel and American Fork, Salt Like-Deer Creek Reservoir.

Wis., Danbury—Burnett Co., Grantsburg, 24x24x17 ft. high, rein.-con. Chase's Brook Dam near here. General Eng. Co., Portage, engr.

BIDS ASKED

Bids Asked November 20

†Illinois—U. S. Eng., Post Office Bldg., Canal and Van Buren Sts., Chicago, dredging, disposing 2,000 cu. yd. material in LaSalle County Farm D.D. near Ottawa.

†Virginia-North Carolina—U. S. Eng., Wilmington, N. C., dredging 1,650,000 cu. yd. material from shoaled areas, aggregating 98,700 ft. in length in Inland Waterway from Norfolk, Va. to Beaufort Inlet, N. C., and in Beaufort Harbor, N. C., etc.; adv. ENR 11/13.

Bids Asked November 24

New Jersey—State Bd. Commerce & Navigation, 1060 Broad St., Newark, Proj. 162, creosoted timber bulkhead, Shark River, adding quarry stone to repair North Stone Jetty, Shark River Inlet, Avon, $60,000; Proj. 163, creosoted timber bulkhead, appurtenances, Bayhead-Manasquan Canal, Point Pleasant, $45,000; Proj. 164, dredging Inland Waterway Channel, anchorage basin, Manasquan River, 8 ft. depth, vicinity Cook's Creek and Will's Hole Thorofare, Point Pleasant Beach, $28,000; Proj. 165, dredging Inland Waterway Channel, 2 sections, 9 ft. depth, sect. 1, Little Bay from Main Marsh Thorofare to Black Point, Sect. 2, Reed Bay, from Meadow Cut to Flat Thorofare, Atlantic City, $55,250; Proj. 166, dredging Inland Waterway Channel, anchorage basin area, Clam Creek to 9 ft. depth, from foot of Delaware Ave. to foot of Massachusetts Ave., Atlantic City, $60,000; proj. 167, dredging Inland Waterway Channel, 7 ft. depth, removal shoal areas, Broad Thorofare, Longport, $37,250; Proj. 171, rebuilding existing stone, steel core-wall jetty by stone replacement, Atlantic Ocean, East End Ave., Avon by the Sea, $27,200; Proj. 172, rebuilding, extend., existing core and stone fill jetty, timber fishing pier, Atlantic Ocean, 8 Ave., Belmar, $51,500. C. W. Staniford, 1060 Broad St., Newark, engr. CD 11/5 and 6; adv. ENR 11/13.

Bids Asked November 25

†South Carolina—U.S. Eng., Charleston, dredging channel Shipyard river to 30 ft., removing 166,438 cu. yd. material, Charleston Co.

†S. C., Charleston—U. S. Eng., Charleston, removing 38,565 cu. yd. material from municipal yacht basin channel.

Bids Asked On or About November 28

†Arkansas—War Dpt., Little Rock, clearing approx. 1,700 acres in Blue Mountain Reservoir, on both sides river, exten. upstream from Blue Mountain Dam, Petit Jean River, Yell Co., Inv. 777-42-35.

Bids Asked November 28

†North Carolina and **Virginia**—U. S. Eng., U. S. Post Office and Court House, Norfolk, dredging 110,000 cu. yd. materials in lower North Landing River section Inland Waterway from Norfolk, Va. to Beaufort Inlet, N. C.

Bids Asked December 2

†Mississippi—U. S. Eng., P.O. Box 60, Vicksburg, approx. 83,000 cu. yd. earthwork west bank O'Neill Creek, Yazoo Co., Inv. 1106-42-70.

Bids Asked December 3

†Tex., Denison—U. S. Eng., Citizens Bank Bldg., furnishing two 36,842 kva. alternating current generators, etc. for Denison Dam and reservoir. CD 10/21—ENR 10/23.

Bids Asked January 6

†Panama—The Panama Canal, 1435 K St. N.W., Wash., D. C., new Gatun Locks, Spec. 5700.

LOW BIDDERS

†California—U. S. Eng., 208 Post Office Bldg., Sacramento, enlarging, raising, strengthening levee, constructing appurtenant works along west levee Reclamation Dist. 2068, 5.5 mi., from Poulos & McEwen, P. O. Box 1017, Sacramento, **$53,335.** Est. $69,098. CD 10/29—ENR 11/6.

★**†California** — Bureau Reclamation, Old Post Office Bldg., Sacramento, Oct. 29, earthwork, concrete lining, structures, Sta. 6 plus 10 to Sta. 301 plus 60, Friant-Kern Canal, Friant Div., Central Valley Project, from Frederickson and Westbrook, and Paul J. Tyler, 212 13 St., Sacramento, **$989,280.** CD 10/6—ENR 10/9.

Calif., Seal Beach—City, Nov. 6, 14,000 tons quarry stone for jetty, from A. S. Sparks, 106 E. C St., Wilmington, **$49,250*****timber groins, from Shannahan Bros., 6193 Maywood Ave., Huntington Park, **$23,973*****300,000 cu. yd. dredging from Macco-Case Constr. Co., 815 N. Paramount Blvd., Clearwater, **$95,400.** CD 10/14—ENR 10/16.

†Florida—U. S. Eng., P. O. Box 4970, Jacksonville, Nov. 7, dredging 290,761 cu. yd. material from Intracoastal Waterway between Matanzas Inlet and Melbourne Bridge, from R. M. Brown, Estelle and Highland Aves., Tampa, **$39,078.** CD 11/5.

†Louisiana—U. S. Eng., foot of Prytania St., New Orleans, Oct. 29, 1,375,000 cu. yd. earthwork in South Bank Red River Levees, New Orleans Dist., from Dameron & Kenyon, Port Allen, **$82,088.** Est. $205,150. CD 10/16—ENR 10/23.

†Montana—Bureau Reclamation, Fairfield, Nov. 7, earthwork, structures for open drains, Greenfield Div., Sun River Project, Spec. 1007, from Williams Constr. Co., Helena, **$44,880.** CD 10/17—ENR 10/23.

CONTRACTS AWARDED

†Missouri—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., 8,470 lin. ft. accreation paving in Missouri River between Quindaro and Amazon Bends, center of work near Bonneville, hired labor and government plant. Est. **$100,000.** CD 10/27—ENR 10/30.

†Missouri—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., 2,300 lin. ft. standard revetment in Missouri River between East Bottom and Sheeps Nose Bends, center of work about 6 mi. downstream from Missouri City, hired labor and government plant. Est. **$50,000.** CD 11/5.

Tex., Laredo—Webb Co., c/o Judge, grading, draining Rio Grande River banks, ditching in adjacent areas, etc., **WPA. $76,181.**

UNCLASSIFIED

PROPOSED WORK

Arkansas — POWER LINE — Southwestern Gas & Electric Co., F. M. Wilkes, genl. mgr., Texarkana, power line from Okay, Hempstead Co., to Army Proving Grounds, Hope. $25,000.

Ark., Dermott—SWIMMING POOL—G. W. Burks & Son, Dermott, swimming pool. $25,000.

★**Ark., El Dorado**—HANGARS, etc.—City Airport Bd., R. E. Meinert, member, hangar, airport imprv. $505,000. CAA.

Colorado—TRANSMISSION LINES—Mountain View Electric Assn., G. H. Spaulding, pres., Colorado Springs, 591 mi. transmission lines. $481,000 REA allot. G. R. Fickel, 302 Guardian Vault Bldg., Denver, engr.

Del., Lewes—AIRPORT—Airport. $455,000.

Fla., Stuart—AIRPORT—Municipal airport, $398,000. CAA.

Ga., Statesboro — AIRPORT — U. S. Eng., P. O. Bldg., Savannah, grading, drainage, runways, taxiways, etc., airport, for City and Bullock Co. $350,000. CAA.

Idaho, Gooding — RUNWAYS, etc. — Civil Aeronautics Auth., Airways Div., Boeing Field, Seattle, Wash., bids soon 3 landing strips, paving runways, airport. $248,000.

Idaho, Idaho Falls—RUNWAYS — Grading, paving, exten. runways, constructing taxiways, airport. $400,000. CAA.

★**Indiana** — ELECTRIC GENERATING UNIT, etc.—Pub. Serv. Co. of Indiana, Inc., 725 Wabash Ave., Terre Haute, 50,000 watt electric generating unit, Dresser Plant, near Terre Haute, Vigo Co., approx. $50,000,000; 35,000 watt electric generating unit, Edwardsport Plant, Knox Co., approx. $3,500,000; 450 mi. high voltage electric transmission lines from Edwardsport to Louisville, Ky., and from Lafayette to Kokomo, approx. $3,500,000; various electric substation facilities, imprvs., approx. $2,500,000.

†Kan., Kansas City—RUNWAYS, etc.—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., additional runway (NE-SW), 2 taxi strips and drainage lines, Fairfax Airport. $400,000.

Michigan — RURAL ELECTRIC LINES — Top O'Michigan Rural Electric Co., Boyne City, H. Lees, mgr., 114 mi. rural electric lines, Crawford, Otsego and Charlevoix Counties. $113,000 REA allot.

Miss., Gulfport — AIRPORT — U. S. Eng., Federal Bldg., Mobile, Ala., rejected bids Sept. 30, airport. $400,000. Will readvertise. CD 10/9—ENR 10/16, under LB.

†Mo., Joplin—LANDING FIELD IMPROVEMENTS—U. S. Eng., Wright Bldg., Tulsa, Okla., landing field imprvs., airport. CD 10/28—ENR 10/30.

Mo., Robertson — AIRPORT — City of St. Louis, c/o C. H. Ellaby, pres. Bd. Pub. Serv., 304 City Hall, St. Louis, developing 205 acre addn. to Lambert-St. Louis Municipal Airport, incl. four 6,000 ft. and two 6,000 ft. rein.-con. runways, rein.-con., brick administration bldg.

Nebraska—TRANSMISSION LINES—Roosevelt Rural P.P. Dist., Mitchell, transmission lines. $33,000 REA. Hemmingson Eng. Co., Standard Oil Bldg., Omaha, engrs.

Neb., Fremont—SWIMMING POOL—J. R. Hanson, mayor, swimming pool. $58,549. Applying for WPA gr.

N. J., Camden—LAKE IMPROVEMENTS—Camden Co. Park Comn., Court House, imprv. Newton Lake, excavating, recreational facilities, drainage, walks, etc., Collingswood, Oakland, Woodland. $101,306. WPA. G. R. Swinton, 930 Atlantic Ave., Atlantic City, WPA engr.

N. J., Garfield — LANDSCAPING, etc. — Imprv. City Hall site, landscaping, grading, excavating, watermains, etc. $54,198. WPA. C. Malstrom, Orange and N. 6 St., Newark, WPA engr.

†N. J., Lakehurst—FLYING FIELD—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., imprv. flying field, excavating, grading, clearing, etc. $122,882. WPA. W. D. Cougle, 1102 S Broad St., Trenton, WPA and owner's engr.

UNCLASSIFIED (Proposed Work, Cont'd.)

N. J., Montclair—LANDSCAPING, etc.—Bd. Educ., Town Hall, landscaping, excavating, grading, drainage, etc. grounds various schools. $59,175. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

N. J., Orange—PLAYGROUND—Imprv., modernizing playground, grading, landscaping, drainage, water lines, retaining walls, running track, tennis courts, etc. $53,732. WPA. K. Crane, Town engr.

N. J., Pequannock—RECREATIONAL CENTER—Recreational center, Newark and Pompton Tpke., clearing, grubbing, running track, baseball diamond, catch basins, etc. $50,100. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

N. J., West New York—PARK IMPROVEMENTS—Imprv. Memorial Park, roller and ice skating rink, retaining wall, etc. $50,091. WPA. C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

North Carolina — RURAL LINES — South River Electric Membership Corp., Stedman, 451 mi. rural electric lines, Bladen, Duplin, Cumberland, Harnett, Johnston and Sampson Counties. $448,000.

Ohio — RURAL LINES — Buckeye Rural Electric Co-op., Inc., J. R. Lusher, supt., Gallipolis, 312 mi. rural electric lines, Gallia, Jackson, Vinton, Meigs, Athens Counties. $330,000. REA allot.

Oregon—RURAL ELECTRIC LINES—Central Ore. Electric Co-op., Richmond, rejected bids Oct. 21, rural lines, Jefferson Co. W. W. Flora, Richmond, prod. engr. CD 10/16.

†Oregon — TRANSMISSION LINE, etc. — Bonneville Power Admin., 811 N.E. Oregon St., 38 mi. transmission line and switching facilities, Tillamook Co. $338,000 allot.

Pennsylvania — OIL PROPERTY DEVELOPMENT—Quaker State Oil Refining Corp., Oil City, crude oil producing properties development, drilling unspecified member 1,800 ft. wells, connecting and gathering pipelines, steel tank storage facilities, etc., McKean County area north of Bradford. $50,000. G. M. Hunter, supt., c/o owner, at Emlenton.

Pennsylvania—RURAL ELECTRIC LINES—Valley Rural Electric Co-operative Inc., J. H. Gahagen, pres., Martinsburg, 194 mi. rural electric lines, Proj. Blair 20-E, Blair, Huntingdon, Fulton and Franklin Counties. $219,000. REA allot.

Pa., Bethlehem—PARK—Developing South Mountain Park, storm water sewers, garbage disposal sys. replacing overhead traffic lights. $250,000. R. L. Fox, city engr. CD 7/15—ENR 7/17.

Pa., Cambridge Springs—GAS FIELD DEVELOPMENT, etc.—H. F. White, et al, Cambridge Springs, developing natural gas field, drilling unspecified number deep wells, connecting pipelines, trunk pipeline into city, distr. mains, etc. east of here. $60,000-$75,000.

Pa., Oil City—LINE FACILITIES, etc.—Penna. Telephone Corp., H. M. Engh, mgr., 20 E. 10 St., Erie, imprv. line facilities, circuits, conduits, expanding facilities, etc. $150,000.

Pa., Shillington—SWIMMING POOL—Shillington Civic Club, Shillington, swimming pool. $45,000.

Tex., Corpus Christi — PARK IMPROVEMENTS, etc. — A. C. McCaughan, mayor, $150,000 bond election Nov. 22, rein.-con. bayfront and stage, appurtenances; $200,000 bonds, park imprvs., incl. grading, athletic courts, swimming pools, etc. G. Blackburn, city engr. CD 10/8—ENR 10/16.

Tex., Corpus Christi—AMUSEMENT PARK—North Beach Amusement Co., c/o W. H. Hames, Corpus Christi, building facilities for miniature Coney Island, incl. water sewer, gas, lighting facilities, playground, etc. $300,000.

Tex., Gladewater — GAS PIPELINE — R. Lacy, Longview, 42 mi. 8 in. gas pipeline west from here. $80,000.

†Tex., Grand Prairie—PARKING APRON, etc.—U. S. Eng., Citizens Bank Bldg., Denison, parking aprons, fuel sys., 4 bldgs., etc., Hensley Field. $100,000.

Tex., Hawkins — PIPELINE GATHERING SYSTEM—Rogers Lacy, Longview, pipeline gathering sys. expansion. $75,000.

Wash., Bellingham—SHIPYARD — Bellingham Marine Ry. & Boat Co., 614 Harris Ave., plant expansion. $50,000.

Wash., Ellensburg—AIRPORT—Civil Aeronautics Auth., Airways Div., Boeing Field, Seattle, bids soon two 4,500 ft. paved runways, 150 ft. wide, airport. $321,000. P. Morris, c/o owner, engr. CD 7/28—ENR 7/31.

Wash., Ephrata — AIRPORT — U. S. Eng., Pittock Blk., Portland, Ore., bids soon, 2 runways with taxiways for airport. $250,000. CAA. CD 8/25—ENR 8/28.

★**†Wash., Spokane**—SUBSTATION—Bonneville Power Admin., P. O. Box 3537, Portland, Ore., substation. $1,000,000.

Wisconsin — ELECTRIC DISTRIBUTION SYSTEM—Buffalo Electric Co-operative, Alma, rejected bids Oct. 15, 48.5 mi. electric dist. sys., Buffalo, Pepin and Trempealeau Counties, REA Proj. Wis. 2027D1, Buffalo, Wisconsin Development Auth., 110 E. Main St., Madison, engrs. CD 10/7—ENR 10/9.

Wisconsin—RURAL ELECTRIC LINES—Oakdale Co-operative Electric Assn., Oakdale, 149 mi. rural transmission lines, Monroe, Juneau & Sauk Counties. $130,000. Wis. Development Auth., 602 Tenney Bldg., Madison, engr.

Wisconsin—RURAL ELECTRIC LINES—Vernon Electric Co-operative, Westby, soon lets contract 68 mi. rural electric lines, Vernon, LaCrosse, Crawford, Richland, Juneau and Sauk Counties. $65,000. United Eng. Serv., 1406 W. Lake St., Minneapolis, Minn., engr.

★**Wis., Knowlton**—DAM, etc.—Consolidated Water Power Co., dam, power plant, Knowlton, Portage Co., transmission lines from dam to village of Brion, Wood Co. $2,122,761.

Wyo., Rock Springs—SWIMMING POOL—Swimming pool. $35,000.

BIDS ASKED

Bids Asked After November 6

Pa., Latrobe—WHARF—American Locomotive Co., W. K. Farrell, purch. agt., 30 Church St., New York, C. Davies, representative, Latrobe, general contract structural steel, concrete brick, covered wharf and crane yard addn. to No. 2 forge shop and boring mill shop, Gertrude St. Bids asked Nov. 5 excav. and site preparation Prack & Prack, 517 Martin Bldg., NS., Pittsburgh, archts. CD 9/23—**ENR 9/25.**

Bids Asked About November 20

†N. M., Hobbs—AIRPORT IMPROVEMENTS—U. S. Eng., Caddoa, Colo., airport imprvs., clearing, grubbing, 154,000 cu.yd. grading, base course and paving runways, taxi strips, boundary lighting, etc. $100,000.

Bids Asked November 21

†Calif., Long Beach — COMMUNICATION DUCTS—U. S. Eng., 751 S. Figueroa St., Los Angeles, underground communication ducts, Long Beach Ferrying Command, Inv. 125.

†Wash., Reardon—TRANSMISSION LINE FIXTURES—Bonneville Power Administration, P. O. Box 3537, Portland, crossarm and X-brace fixtures, Coulee-Spokane 115 kv. transmission lines, Inv. 2389.

Bids Asked About December 1

Wisconsin—RURAL ELECTRIC LINES—Oakdale Co-operative Electric Assn., Oakdale, 149 mi. rural electric transmission lines, Monroe, Juneau, Wood, Sauk and Jackson Counties. $130,000. Wisconsin Development Auth., 602 Tenney Bldg., Madison, engr. CD 10/29—ENR 11/6.

Bids Asked After December 1

South Dakota—RURAL ELECTRIC LINES—Lincoln-Union Elec. Co., Alcester. 348 mi. transmission lines. $232,000. Buell & Winter, 508 Ins. Exch. Bldg., Sioux City, Ia., engrs. CD 4/23—ENR 5/8.

Bids Asked December 2

†N. Y., Brooklyn—PIER—Pub. Wks. Officer, 3rd Naval Dist., 90 Church St., New York, repairing pier, Fort Hamilton.

Bids Asked December 3

†Md., Carderock—WIND TUNNEL, etc.—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., wind tunnel bldg. and construction shed, Naval Experimental Model Basin, Spec. 10542. Former bids rejected. CD 10/29—ENR 11/6 under LB.

Bids Asked About December 5

New York—RURAL LIGHT SYSTEM, etc.—Otsego Electric Assn., Inc., Oneonta, 442 mi. rural light, power lines. $400,000. Gibbs & Hill, 600 N. 2 St., Harrisburg, Pa., engrs. CD 7/29—ENR 7/31.

LOW BIDDERS

★**†Calif., Long Beach**—LANDING FIELD—U. S. Eng., 751 S. Figueroa St., Los Angeles, Nov. 1, landing field, A. C. Ferrying Command, from James I. Barnes Constr. Co., Central Tower Bldg., Santa Monica. **$517,688.** CD 10/29.

Calif., Oxnard—AIRPORT—U. S. Eng., 751 S. Figueroa St., Los Angeles, Nov. 7, grading, paving Ventura County airport, near here, CAA Program B, from J. E. Haddock, Ltd., 3578 E. Foothill Blvd., Pasadena, **$56,771.** CD 10/29—ENR 9/25.

†Calif., Santa Ana—ELECTRIC DISTRIBUTION LINES—U. S. Eng., 751 S. Figueroa St., Los Angeles, Oct. 30, electrical distr. lines, West Coast Air Corps Replacement Center, from R. R. Jones Electric Co., 1124 S. Fair Oaks Ave., South Pasadena, **$56,565.** CD 10/29.

†Kan., Kansas City—GASOLINE FUELING SYSTEM—U. S. Eng., 601 Davidson Bldg., Kansas City, Mo., Nov. 4, Air Corps gasoline fueling sys. for Fairfax Airport, from Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y., **$45,939.** Est. $39,865. CD 10/27—ENR 10/30.

Miss., Waveland—GAS SYSTEM—Mayor, natural gas transmission and distr. sys., from Gulf Constr. Co., Waveland, **$56,990.** F. P. Joseph, Glenmore, La., engr. CD 10/16—ENR 10/23.

Mo., Kirksville—AIRPORT—City Clk., Dec. 9, grading in connection with airport development, from E. Elsea, Kirksville, $45,230; asphalt paving, drainage, etc., from Concrete Materials & Constr. Co., Grady Bldg., Cedar Rapids, Ia., **$81,957.** CAA.

Nev., Ely—AIRPORT—U. S. Eng., 751 S. Figueroa St., Los Angeles, Calif., Nov. 7, grading, paving, Ely Airport, from Constr. Co., Reno, **$222,968.** CD 10/29.

†Ore., Bonneville—BUSES—U. S. Eng., 628 Pittock Blk., Portland, furnishing 7 metal-enclosed buses for Units 7, 8 and 9 Bonneville Dam, Inv. 698-42-202, from I-T-E Circuit Breaker Co., 19 and Hamilton Sts., Phila., Pa. **$273,374.** CD 10/1—ENR 9/18.

†Tex., Fort Worth—AIRFIELD DRAIN—U. S. Eng., Citizens Bank Bldg., Denison, airfield drain, concrete runways, taxiways, electric night lighting, duct sys., 6 in. subgrade curbing, asphalt oil stabilized shoulders from Texas Bitulithic Co., 111 Commerce St., Dallas. **$473,118.** CD 10/22.

†Tex., Greenville—AIRPORT—U. S. Eng., Citizens Bank Bldg., Denison, Oct. 28, Airport, from M. R. Thomason, 202 Cypress Pkway, Montgomery, Ala., **$265,052.** Total est. $470,000. CD 10/20—ENR 10/9.

Tex., Houston — AIRPORT IMPROVEMENTS — U. S. Eng., Federal Bldg., Galveston, airport imprvs., clearing, paving runways, etc., from Russ Mitchell, Inc., 2307 Jefferson St. **$394,495.** CAA.

†Tex., San Antonio—UNDERGROUND UTILITIES—U. S. Eng., Federal Bldg., Galveston, Oct. 31, underground utilities, (gas, water and sewers) at Kelly Field, from E. L. Dalton & Co., 406 Great Natl. Life Ins. Bldg., Dallas **$41,255.** CD 10/21—ENR 10/23.

†Va., Langley Field—STEAM DISTRIBUTING SYSTEM—U. S. Eng., Norfolk, Oct. 21, high pressure steam distr. sys., hot water heating sys., from National Heating Co., 1010 Wisconsin Ave. N.W., Wash., D. C. Bid 1 **$98,985.** Bid 2, $92,050. CD 10/21—ENR 10/23.

Wash., Tacoma — TRANSFORMERS and CONDENSERS—City, Nov. 3, furnishing six 14,000 kva. 115/52.5 and 13.8 kv. O.I.W.C. transformers for substation enlargement, from Pennsylvania Transformer Co., 1701 Island Ave., Pittsburgh, Pa., **$171,000;** two 20,000 kva. 13.8 kv. outdoor air cooled synchronous condensers, Tiedflats Substation, from Allis-Chalmers Mfg. Co., 1126 S. 70 St., Milwaukee, Wis. **$232,000.** CD 10/6—ENR 10/9.

CONTRACTS AWARDED

†Ala., Mobile—GASOLINE FUELING SYSTEM—U. S. Eng., Federal Bldg., gasoline fueling sys., Brooklyn Field, to Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y. **$124,114.** Awarded 9/9.

†Calif., Victorville—ELECTRICAL DISTRIBUTION SYSTEM—U. S. Eng., 751 S. Figueroa St., Los Angeles, electrical distr. sys., Victorville Military Airport, to W. T. Drury, 615 18 St., Bakersfield. **$98,257.**

†Conn., New London—SUBMARINE BASE—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., submarine base, sewers, paving, grading, seeding, retaining wall, etc., **WPA. $80,419.**

Conn., Stratford — AIRPORT IMPROVEMENTS—City of Bridgeport, J. McLevy, mayor, City Hall, Bridgeport, exten., relocate ditches, dikes, 60x1,200 ft. taxi strip, exten. N/NW and S/SE landing strip 500x4,000 ft., ramp 137x400 ft., exten. 150 ft. paved runway to 4,000 ft., rein. con. turnabout, grading, drainage, basic lighting, **WPA. $239,789.** A. Pastorius, 125 Munson St., New Haven, engr.

Idaho, Lewiston — AIRPORT — Airport, **WPA. $300,000.** W. P. Hughes, City Hall, engr.

Idaho-Washington — AIRPORT — Pullman-Moscow Airport Bd., c/o R. D. Tucker, Pullman, Wash., lengthening, widening airport, surfacing, etc., **WPA. $165,000.** CD 9/26—ENR 10/2.

★**†Mass., Boston**—DRY DOCK—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., shipbuilding dry dock, Navy Yard, Contr. NOY 5080, to J. F. Fitzgerald Constr. Co., 214 Essex St. **$1,500,000.**

Mass., Pittsfield—TRANSFORMER PLANT—General Electric Co., Morningside St., 1 story, 110x210 ft., brick, steel transformer plant extens., to Lindholm Constr. Co., Inc., 1277 East St. Est. **$162,000.** CD 9/15—ENR 9/18.

†Miss., Columbus—GASOLINE FUELING SYSTEM—U. S. Eng., 1 and Douglas Sts., N. W., Wash., D. C., gasoline fueling sys., to Aqua Systems, Inc., 385 Gerard Ave., New York, N. Y., **$113,845.**

Nebraska — RAILROAD GRADING, etc.—Chicago, Burlington & Quincy R.R. Co., H. A. Aalbert, asst. ch. engr. (lines west of Missouri River), 201 N. 7 St., Lincoln, grading, constructing for spur tracks roadbed, southern part Saunders Co., near Ithaca, to Empire Constr. Co., 901 S. 40 St., Omaha. Est. **$25,000.**

★**†Nev., Las Vegas**—TRANSMISSION LINES—Basic Magnesium, Inc., P. O. Box 1150, 40 circuit miles 230 kv. transmission lines for War Dpt., separate contracts. **$3,000,000.** Defense Plant Corp. will finance. J. M. Monts

UNCLASSIFIED (Contracts Awarded, Cont'd.)

gomery & Co., 306 W. 3 St., Los Angeles, Calif., engr. CD 9/9—ENR 9/11, under Public Bldgs.

N. J., Bayonne — MARINE TERMINAL — Imprv. Marine Terminal, railroads, crossovers, wall, etc., **WPA. $75,000.** H. Jaeger, city engr.

N. J., Camden—PARK IMPROVEMENTS—Camden Co. Park Comn., Court House, excavating, landscaping, athletic fields, drainage, etc., various parks, **WPA. $73,500.** G. R. Swinton, 930 Atlantic Ave., Atlantic City, WPA engr. CD 8/26—ENR 8/28.

N. J., New Brunswick—GROUND IMPROVEMENTS—Rutgers University, College Ave., ground imprvs., excavating, grading, etc., walks, paths, golf course, G. & H. fields and Nelson field, **WPA. $55,040.** CD 10/15—ENR 10/23.

N. J., Waldwick — PLAYGROUND IMPROVEMENTS — Imprv. playgrounds, excavating, grading, landscaping, courts, etc. **WPA. $51,400.** C. Malstrom, Orange and N. 6 Sts., Newark, WPA engr.

Pennsylvania—MINE SEALING—Pennsylvania Dpt. Forests & Waters, Capitol, Harrisburg, 400 mine sealing projects along west branch Susquehanna River, to prevent formation fish-killing acids, most of work, in Clearfield Co., **WPA. $100,000.**

Pa., Phila.—WALLS, etc.—Reconstructing walls, grading, etc., various sects. city. Owner supervises. **$168,000.**

Tex., El Paso—AIRPORT IMPROVEMENTS—J. E. Anderson, mayor, airport administration building, appurtenances, to R. E. McKee, El Paso. **$105,900.** Est. $150,000. CD 10/17.

Tex., Houston — AIRPORT IMPROVEMENTS—U. S. Eng., Federal Bldg., Galveston, municipal airport imprvs., to Russ Mitchell, Inc., 2302 Jefferson St., **$91,128.** CAA. Awarded 10/30.

†Tex., Houston—BOMBING RANGE TARGETS—U. S. Eng., Federal Bldg., Galveston, bombing range targets Ellington Field, Inv. 359-42-143, to Smith-Bauer Dredging Co., Port Lavaca, approx. **$28,200.**

†Tex., Pottsboro — AIRPORT IMPROVEMENTS—U. S. Eng., c/o Citizens Bank Bldg., Denison, 75 ft. wide asphalt runway shoulders, taxi strips, etc., near here, to R. Ball, Central Contg. Co., Construction Bldg., Dallas. **$85,154.** Est. $100,000. Bids 11/3. CD 10/29.

Tex., San Antonio—AIRPORT—C. K. Quin, mayor, airport 1,200 acre site, **WPA $2,600,000.** CAA for completed projeect. J. W. Beretta Engineers, Inc., Natl. Bank Commerce Bldg., Matthews & Kenan, Smith-Young Tower, W. E. Simpson, Milam Bldg., H. R. F. Helland and F. A. Drought, Frost Bldg., engrs. Phelps & De Wees & Smith, Majestic Bldg., Atlee B. and Rob M. Ayres, Smith-Young Tower, M. Eickenroht, Maveric Bldg., B. Cocke, Maverick Bldg., archts. CD 5/14—ENR 5/22.

†Utah, Ogden—STEAM HEATING SYSTEM, etc.—Con. Q.M., General Depot, steam heating sys. Warehouse 3, underground steam connection to clothing renovating steam plant, electrical equip. conduit wiring, appurtenances, to James I. Barnes Constr. Co., Santa Monica, Calif., **$25,330.** Bids 10/28. CD 10/21.

†Wash., Tacoma—ATHLETIC FIELD—War Dpt., 20 St. and Constitution Ave., N.W., Wash., D. C., clearing 30 acres athletic field, sprinkling sys., cinder tracks, portable bleachers, etc., **WPA. $101,528.**

Wash., Yakima—AIRPORT—300 ft. Runway 3 exten., 2 taxi strips, 350,000 sq. yd. double seal coat asphalt for runways, airport, **WPA. $250,000.** CAA. CD 10/31—ENR 11/6.

★**Wyoming**—TRANSMISSION LINES—Rural Electric Co., G. N. Phillips, supt., Pine Bluffs, 703.8 mi. transmission lines, force account. **$578,000.** W. W. Flora, Cheyenne, engr.

Alta., Granum—AERODROME—Dpt. Transport, Ottawa, Ont., aerodrome development, grading, drainage, taxi strip, for S.F.T.S. Relief 1 to Macleod, to General Constr. Co. Ltd., Granville Island, Vancouver, B. C., about **$65,000.**

Alta., Pearce—AERODROME—Dpt. Transport, Ottawa, Ont., aerodrome for E.F.T. school, incl. grading, etc., to Columbia Bitulithic, Ltd., Granville Island., Vancouver, B. C., about **$200,000.**

Man., Souris—AIR TRAINING SCHOOL—Dpt. National Defense for Air, Ottawa, Ont., 29 buildings, S. F. T. School 44, to Claydon Co. Ltd., 290 Garry St., Winnipeg, about **$500,000.** CD 10/17—ENR 10/23.

N. B., Moncton—AERODROME—Dpt. Transport, Ottawa, Ont., aerodrome development, grading, top soiling, etc., to Rayner Constr. Ltd., 29 Commercial St., Toronto, Ont., about **$81,000.**

★**Newfoundland, St. Johns**—AERODROME IMPROVEMENTS—Dpt. National Defense for Air, Ottawa, Ont., addnl. aerodrome construction for R. C. A. F. station, incl. sewers, roads, etc., to E. G. M. Cape & Co., Ltd., 620 Cathcart St., Montreal, Que., about **$1,000,000.**

N. S., Dartmouth—WHARF—Dpt. National Defense for Sea, Ottawa, Ont., wharf exten., Acadia Sugar Refinery, to Foundation Maritime Ltd., 135 Lower Water St., Halifax. **$27,000.** Bids 9/30. CD 9/24.

N. S., Londonderry—OBSERVATION TOWERS—Province of Nova Scotia, Halifax, steel observation towers, day labor. **$30,000.** Dpt. P. Wks., Halifax, engrs.

N. S., Sydney—QUAY WALL—Dpt. P. Wks., Ottawa, Ont., quay walls, Point Edward, to M. H. MacManus, Ltd., 76 Harvard St., Halifax. **$246,563.** K. M. Cameron, c/o owner, engr. Bids 9/12. CD 9/4.

Ont., Clarkson — PUMP HOUSE — British American Oil Co. Ltd., Royal Bank Bldg., Toronto, pump house, to Russell Constr. Co. Ltd., Harbour Comn. Bldg., Toronto, about **$30,000.** C. Dolphin, 4 Victoria St., Toronto, archt. Bids 10/13. CD 10/7—ENR 10/9.

Que., Lauzon—RUNWAYS—G. T. Davie & Sons, Ltd., 27 Davie St., 2 runways, to U.Ste. Marie, Beauport. **$30,000.**

Que., Lauzon—WHARF—Imperial Oil Ltd., 3400 St. Patrick St., Montreal, deep water wharf, to P. H. Murphy, Main St. Est. **$35,000.**

Que., Longueuil—HANGAR, etc.—Fairchild Aircraft Ltd., Longueuil, hangar and boiler house, to Deakin & Stewart, Ltd., 1440 St. Catherine St. W., Montreal. **$36,000.** T. Pringle & Son, Ltd., 485 McGill St., Montreal, engrs.

Que., Newington — Dpt. National Defense, Ottawa, Ont., constructing roads, Internment Camp, to Stewart Constr. Co. Ltd., 7 Dufferin Ave., Sherbrooke. **$119,000.**

LATIN AMERICA

Mexico—Sec. de La Marina, Mexico, D. F., plans port works, featuring breakwaters, larger and more modern piers, warehouses, etc., at **Vera Cruz, Copatzcoalcos,** $625,000*** Dpt. de Salubridad Publica, Mexico, D. F., plans 7 sanitary centers in sugar zones and provision and imprv. tap water services in various towns throughout Mexico, $1,300,000.

PUBLIC BUILDINGS

PROPOSED WORK

Ala., Talladega—Citizens Hospital plans by E. G. Lutz, 313 Catoma St., Montgomery, 4th floor hospital and nurses home addn. $150,000. Applied for DPW funds.

★**†Ariz., Florence**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., plans by Headman-Ferguson & Carollo, archts. and engrs., Home Builders Bldg., Phoenix, camp, 300 miscellaneous bldgs., utilities. Approx. $4,507,407.

★**Ariz., Tucson**—Tucson Housing Auth., 162 unit housing Proj. ARIZ-4-1 and 30 unit housing, Proj. ARIZ. 4-2. $735,300 USHA loan.

†Ark., Camp Robinson—Con. Q.M., huts-ments. $300,000.

Ark., Perryville—Judge, Perry Co., Perryville, courthouse.

★**†Calif., Camp Haan**—Con. Q.M., Camp Haan, additional bldgs., utilities, anti-aircraft training base. $3,000,000.

★**Calif., Los Angeles**—Los Angeles City Housing Auth., 1031 S. Bway., plans by Project Architects Associated, 608 Chamber of Commerce Bldg., 260 unit, 2 story and 1 story, wood frame housing bldgs., 3 and Gless Sts. $1,309,000. G. H. Schulte, 608 Chamber of Commerce Bldg., H. Bernett, 35 S. Raymond Ave., Pasadena, engrs.

★**Conn., Hartford**—City Housing Auth., B. Cox, chn., 525 Main St., plans by Ebbets & Frid, 15 Lewis St., Hartford, and bids soon 4 story, brick apartments, 150 units, Conn. 3-3. $895,000. USHA.

†Conn., Windsor Locks—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., bids soon ordnance facilities, Windsor Locks Air Field, Army Air Corps.

Del., Milford—State Bd. Educ., Dover, plans by M. G. Whiteside, duPont Bldg., Wilmington, school. $300,000. CD 8/5—ENR 8/7.

D. C., Wash.—Alley Dwelling Auth., 1300 E St. N.W., rejected bids Sept. 24, Parkside Dwelling Housing, Project D.C.1-11, Barnes Lane between Kenilworth Ave. and Fort Dr. CD 8/27—ENR 9/4.

†Fla., Crestview—Bd. Pub. Instruction for Okaloosa Co., acting for Special Tax School Dist. 17, school and high school addns., Docket Fla. 8-195, $20,000. **DPW.**

★**†Fla., Miami**—City, hospital, nurses home, ground imprvs., Docket Fla. 8-145, $1,050,000. **DPW.**

†Fla., Panama City—Bd. Pub. Instruction Bay Co., acting in behalf Parker Special Tax School Dist., Parker school addn., near here, Docket Fla. 8-168. $48,000. **DPW.**

Idaho, Nampa—Nampa Housing Auth., plans by Paradice & Lash, Twin Falls, 75 unit housing Project, Ida 2-1, 18 Ave. N. and Second St., $250,000.

†Ill., Alton—St. Joseph's Hospital, addn. St. Joseph's Hospital, Docket Ill. 11-180. $135,000. **DPW.**

★**†Ill., Granite City**—Granite City Steel Co., constructing, equipping plant. $6,300,000. Defense Plant Corp. will finance.

★**†Ill., South Chicago (Sta. Chicago)**—Republic Steel Corp., C. A. Thayer, engr., Republic Bldg., steel plant, 504,000 tons alloy steel ingots yearly. $10,000,000. Defense Plant Corp. will finance.

†Ind., La Porte—La Porte County Protestant Hospital Assn., hospital, alterations, addn., Docket Ind. 12-122. $242,000. **DPW.**

†Ind., South Bend—Epworth Hospital, hospital addn., Docket Ind. 12-127. $226,000. **DPW.**

†Ind., South Bend—Sisters of Holy Cross Hospital Assn. for St. Joseph's Hospital, addn. St. Joseph Hospital, Docket Ind. 12-129. $201,000. **DPW.**

Ia., Hawarden—Rejected bids Oct. 15, light plant addn. $92,000. Buell & Winter, 508 Ins. Exch. Bldg., Sioux City, engrs. $92,000. CD 10/7—ENR 10/9.

★**†Ky., Richmond**—War Dpt., 20 St. and Constitution Ave. N.W., Wash. D.C., ordnance ammunition storage depot on 14,000 acre site.

†La., Baton Rouge—State Bd. Health, c/o Dr. J. H. Musser, pres. bd., plans by A. Hays Brown, Louisiana Natl. Bank Bldg., health unit, Docket La. 16-112, $348,000. **DPW.** CD 10/28—ENR 10/30.

†La., Shreveport — City, S. H. Caldwell, mayor, plans by W. B. Wiener, Slattery Bldg., health center, Docket La. 16-115, $75,000. **DPW.**

Md., Baltimore—Plans by C. N. Friz, Lexington Bldg., and bids in February, 3 story school, concrete fdn., Bond, Orleans, Jefferson and Bethel Sts. $400,000. Public Imprvt. Assn., City Hall, engrs. CD 7/22—ENR 7/24.

†Md., Baltimore — Bendix Aviation Corp., Julien B. Friez & Sons Div., 8 W. 40 St., New York, N. Y., factory addns., imprvs., for manufacture aircraft equip. for Navy Dpt. $232,200 for land and bldgs., $148,516 for equip. Defense Plant Corp. will finance.

★**†Mass., Camp Edwards**—Con. Q.M., Camp Edwards, army cantonment extens., barracks, warehouses, mess bldgs., hospitals, chapels, pump station, roads, sewers, etc. $3,200,000. Whitman & Howard, Inc., 89 Broad St., Boston, engrs.

†Mass., Chicopee Falls—U. S. Eng., 819 Industrial Trust Bldg., Providence, R. I., rejected bids Nov. 1, post exchange, service station and lubritorium, Army Air Base, Westover Field. Will readvertise. CD 10/10—ENR 10/16.

Mich., Dearborn—School Dist. 7, plans by H. C. Vicary, 22645 Nona Ave., school. $185,000.

★**†Mich., Detroit**—Chrysler Corp., 341 Massachusetts Ave., Highland Park, sketches brick, steel tank arsenal addn., for War Dpt. Over $500,000.

★**†Mich., Detroit**—Vickers, Inc., 1400 Oakman Bldg., plant for manufacture aircraft equip. for War Dpt. $3,656,503 for land and buildings, $4,934,454 for machinery and equip. Defense Plant Corp. will finance.

Mich., Detroit—Detroit Housing Auth., 735 Randolph St., bids in December 210 Brightmoor housing, Proj. 1-6. USHA. CD 10/14.

★**†Mich., Flint**—Fisher Body Div. General Motors Corp., General Motors Bldg., Detroit, 1 story, brick, steel, rein.-con. plant for manufacture of tanks. $4,800,000. Defense Plant Corp. will finance.

Mich., Marquette—Northern State Teachers College, State Administrative Bd., Lansing, sketches by W. D. Knox, 424 Riker Bldg., Pontiac, brick, steel, stone college library, plain fdn. $150,000.

†Mich., Nankin—School Dist. 7, Nankin Twp., Wayne Co., school addn., Docket Mich. 20-144. $28,495. **DPW.**

†Mich., North Muskegon—Public Schools of North Muskegan, high school addn., Docket Mich. 20-134. $78,750. **DPW.**

Miss., Coldwater—City, c/o E. L. Malvaney, archt., Jackson, 10 commercial bldgs., 2 churches, bank, post office.

Miss., Meridian—Meridian Housing Auth., 79 unit housing, Proj. MISS-4-5. $315,000 USHA loan.

★**†Mo., Clayton (St. Louis P. O.)**—St. Louis Co., c/o W. E. Miller, clk., Court House, bids soon 5 story, bsmnt., rein.-con., brick health center, North and South Rd., also boiler house addn., County Hospital, Docket Mo. 23-139. $522,500. **DPW.** Wm. B. Ittner, Inc., 408 Bd. Educ. Bldg., St. Louis, archts. and engrs. CD 11/3—ENR 11/6.

†Mo., Waynesville — Consolidated School Dist. 6, Pulaski Co., c/o Bd. Educ., Waynesville, bids soon brick, concrete school, Docket Mo. 23-106. $252,812. **DPW.** D. R. Sandford, Springfield, archt. CD 9/23—ENR 9/25.

†Neb., Fort Crook—U. S. Eng., 1709 Jackson St., Omaha, 3 story hospital with kitchen and boiler plant. $300,000.

★**†N. H., Portsmouth**—City, H. L. Moore, supt. Schools, 126 Daniels St., plans by Wells, Hudson & Granger, Main St., Hanover, brick, steel high school addn., Docket N.H. 27-102. $935,000. **DPW.** Charles A. Maguire, 1515 Turks Head Bldg., Providence, R. I., engr. CD 9/4—ENR 9/11.

★**†N. J., Bloomfield** and **W. Va., Fairmount**—Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., plans for manufacture radio equip., for War Dpt. $150,595 for land and bldgs., $1,258,172 for equip. Defense Plant Corp. will finance.

★**†N. J., East Paterson**—Wright Aeronautical Corp., 132 Beckwith Ave., Paterson, plant for manufacture aircraft engines for War Dpt. $2,747,800 for land and bldgs., $2,226,400 for machinery and equip. Defense Plant Corp. will finance.

†N. J., Fort Dix—Con. Q.M., rejected bids Oct. 24, altering mess halls, reception center.

†N. J., Fort Monmouth—Con. Q.M., exten. Signal Corps School, new bldgs., equip., etc.

PUBLIC BLDGS. (Proposed Work, Cont'd.)

†N. J., Irvington—F. C. Kent Co., 65 Grace St., 1 story, brick, steel airplane parts factory addn., Howard St. Defense Plant Corp. will finance.

†N. J., Paterson — Electronic Mechanics, Inc., 85 Hazel St., brick, steel insulating mfg. bldg. addn., Hazel St. $98,120 incl. equip. Defense Plant Corp. will finance.

N. J., Shrewsbury—Plans by A. Merchant & Son, 1 Elm Row, New Brunswick, 1 story, brick, steel school addn. $202,000. DPW funds applied for.

†Ore., Astoria — Con. Q.M., Fort Lewis, Wash., recreation and armory bldg. $110,000. J. Wicks, Astoria, archt. CD 10/23—ENR 10/30.

★**†Ore., Fairview**—Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., aluminum fabricating plant. $20,000,000.

★**†Ore., Portland** — Oregon Shipbuilding Corp., Henry Bldg., 2 bldgs., 2 story office bldg. addn., several small bldgs.; additional steel storage racks, etc. $3,528,050. O. A. Mechlin, resident engr. for Maritime Comn. Defense Plant Corp. will finance.

Pa., Aliquippa—Bd. Educ., L. M. Wilson, supt., bids soon general contract 1 story, 105x180 ft., face brick, hollow tile auditorium addn. to high school. $275,000. Taking bids on structural steel. Carlisle & Sharrer, Martin Bldg. N.S., Pittsburgh, archts. CD 7/14—ENR 7/17.

†Pa., Charleroi—U. S. Eng., Federal Bldg., Pittsburgh, bids soon 1 and 2 story, 50x200 ft., brick, steel, tile warehouse, office bldg., loading dock, Lock 4, U. S. Boat Yard.

†Pa., Coatesville—Mutual Ownership Defense Housing Div. of FWA, Wash., D. C., 400 defense homes, Project 36272 X. CD 10/23—ENR 10/30.

★**Pa., Erie** — Erie Housing Auth., J. A. Schmidt, man. dir., 207 Hays Bldg., plans by Meyers & Johnson, 821 Commerce St., and bids soon 224 unit Harbor Homes housing development, Proj. USHA Pa. 13-1, $1,090,000, Hill & Hill, Main St., North East, engrs., CD 8/28—ENR 9/4; plans 60 unit colored housing, Proj. Pa. 13-2, $216,000. USHA., CD 8/12—ENR 8/14.

★**†Pa., Geneva**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., TNT plant, known as Keystone Ordnance Works. Over $3,500,000. CD 10/16—ENR 10/23, under Brownsville.

Pa., Harrisburg—General State Auth., 2 and Locust Sts., plans by P. Cret, Architects' Bldg., Phila., executive mansion for governor, Front and Maclay Sts. CD 6/23—ENR 6/26.

Pa., Natrona — Bd. Educ., Harrison Twp., O. P. Ballantine, chg., c/o HarBrack School, Natrona, school, Harrison Twp., near here. $150,000. Applied for DPW funds.

★**Pa., Pittsburgh**—Pittsburgh Housing Auth., Dr. B. J. Hovde, administrator, dir., Law & Finance Bldg., plans by Alfred M. Marks, Wm. B. Simboli & R. A. Fisher, 702 Grogan Bldg., 3 story, brick, tile back-up, Arlington Housing, Project Pa. 104. $3,000,000.

R. I., Tiverton—L. M. Wager, supt. Schools, plans by E. M. Corbett, 49 Purchase St., Fall River, Mass., 2 story, bsmnt., concrete, brick, stone school, North Tiverton. $150,000.

Tenn., Nashville—State, P. Cooper, gov., power generating plant, penitentiary, convict labor. $280,000.

Tenn., Rutherford—H. L. Beach, mayor, voted bonds, factory. $40,000.

†Tex., Abilene—Bd. Trustees, c/o L. E. Dudley, secy., plans by D. S. Castle, Abilene, school, Tex. 41-142. $301,000. **DPW.** CD 10/3—ENR 11/6.

†Tex., Austin—State of Texas, 4 story health dpt. bldg., and 1 story existing bldg. addn. Docket Tex. 41-257. $272,605. **DPW.** CD 8/26 ENR 8/28.

†Tex., Castleberry — Castleberry Common School Dist. 93, Castleberry School addn. Docket Tex. 41-193. $18,000. **DPW.**

★**†Tex. Corpus Christi**—A. C. McCaughan, mayor, bond election Nov. 22, central fire station, $175,000. G. Blackburn, city engr., CD 10/8—ENR 10/16; $500,000 bond election Nov. 22, 5 story city-county hospital, 4 story nurses home, 5 story tuberculosis bldg., 2 story utility bldg., Docket Tex. 41-230, $1,500,000. **DPW.** Brock, Roberts & Anderson, Jones Bldg., architects. Matthews & Kenen, Smith-Young Tower, San Antonio, engrs., CD 10/31—ENR 11/6.

†Tex., Corpus Christi—Sunshine-Aberdeen Consolidated Common School Dist. 5, Aberdeen School and Sunshine School addns. Docket Tex. 41-131. $115,000. **DPW.** CD 9/23—ENR 9/25.

†Tex., El Paso—Independent School Dist., Jr. High School, Docket Tex. 41-137, $181,500; Austin High School addn., Docket Tex. 41-136, $205,700. **DPW.** CD 7/30—ENR 8/7.

†Tex., El Paso—Winchester Cooley Common School Dist. W-20, bungalow-portable school bldg., Docket Tex. 41-151. $10,000. **DPW.**

†Tex., Grand Prairie—Grand Prairie Independent Free School Dist., school, Docket Tex. 41-233. $200,000. **DPW.** CD 6/8—ENR 7/10

★**†Tex., Killeen**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., plans by Wyatt C. Hedrick, 1005 1st Natl. Bank Bldg., Fort Worth, bldgs., appurtenances, utilities, site development, etc., for division 30,000 or more men, near here. $22,800,000.

★**Tex., Lubbock** — Lubbock Housing Auth., plans by Haynes & Strange, 415 Myrick Bldg., 130 to 180 unit dwellings. $515,000-$760,000. Walker & Atcheson, and J. B. Roberts, Lubbock, consult. engrs. R. K. Werner, W. T. Waggoner Bldg., Fort Worth, mechanical engr. CD 11/6.

†Tex., Mineral Wells—Mineral Wells Independent School Dist., Barber, Sam Houston and Travis School addns., alterations, remodeling High School, new Senior High School, Dunbar School for Negro Children addn., Dockets Tex. 41-111 and Tex. 41-901, $253,070 and $250,320. **DPW.** CD 7/10—ENR 7/17.

†Tex., Palacios—Palacios Independent School Dist., remodeling 3 story school, new elementary school, Mexican School temporary addn., Negro School and high school temporary addns., Dockets Tex. 41-102 and Tex. 41,902. $50,333 and $116,794. **DPW.** CD 8/6—ENR 8/14.

Tex., Texas City—Texas City Housing Auth. plans by Mackie & Kamrath, Esperson Bldg., Houston, C. A. Johnson, Sterling Bldg., Houston, Cutler & Tools, assoc. archts., Texas City, 100 and 200 one and two story defense units. $300,000.

Tex., Winters—T. A. Smith, mayor, rejected bids Oct. 13, generating plant, etc. Will readvertise. H. B. Bieb & Co., Texas Bank Bldg., Dallas, engrs. CD 10/21—ENR 10/23, under LB.

†Va., Alexandria — Alexandria Housing Auth., rejected bids Sept. 30, 120 defense housing units, Project 44136X, for USHA. CD 9/26.

★**Va., Richmond**—Richmond Housing Auth., 190 unit housing, Proj. VA-7-3. $855,000 USHA loan.

★**†Washington** — Defense Plant Corp., 811 Vermont Ave. N.W., Wash., D. C., aluminum fabricating plant at Longview or Vancouver. $14,000,000.

†Wash., Bremerton—City plans by Naramore and Associates, Dexter Horton Bldg., Seattle, new fire stations. **DPW** WASH. 45-125. $283,-450. CD 9/19—ENR 9/25.

★**†W. Va., Charles Town**—War Dpt., 20 St. and Constitution Ave. N.W., Wash., D. C., ordnance ammunition storage depot, on 14,000 acre site.

†Wis., Oshkosh—Wisconsin Axle Co., 567 High St., 1 story, 160x180 ft., brick, concrete factory, to B. B. Ganther Co., 78 State St. Est. **$75,000.** Defense Plant Corp. will finance. CD 10/30—ENR 11/6.

Wis., Spooner—G. B. Sage, city clk., preparing plans hydro-electric plant. L. A. DeGuere, Wisconsin Rapids, engr.

†Wis., Washburn—City, permanent school bldg., replace Lincoln School, Docket Wis. 47-102. $120,000. **DPW.** CD 8/7—ENR 8/14.

†P. R., Caguas—Puerto Rico Housing Auth., 120 housing units, Delgado Development, P.R. 3-5, to Francisco Nevares, Santurce. **$173,000.** Bids 9/23, awarded 10/31. CD 4/11.

BIDS ASKED

Bids Asked November 18

Kan., Winfield—F. E. Jarvis, mayor, power piping in power plant, etc. $25,000. Black & Veatch, 4706 Bway., Kansas City, Mo., engrs.

N. Y., St. George—Dpt. P. Wks., Municipal Bldg., New York, Richmond Health Substation, St. Patrick's Pl. and Center St.

†Pa., Baden—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 250 defense housing units, Project 36056X, for USHA. A. Martsolf, G. E. Trent and H. Bradley, 9 St., Monaca, archts. E. S. Tower, 213 Investment Bldg., Pittsburgh, mech. engr. CD 10/24.

Bids Asked November 19

†Fla., Clewiston—U. S. Eng., Jacksonville, structure for storage heavy machinery, U. S. Eng. Reservation.

†Md., Baltimore — Koppers Co., American Hammered Piston Ring Div., Bush and Henry Sts., 1 story, 45x100 ft., brick, steel laboratory, concrete fdn. Defense Plant Corp. will finance. CD 11/6.

†N. H., Portsmouth—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., machine shop exten., Portsmouth Navy Yard, Spec. 10698.

O., Amherst—W. H. Barber, village clk., Contrs. 2 and 10, electric generating plant, two 625-750 kw. turbo generator units, miscellaneous iron work, etc. F. G. Browne, Marion Bldg., Marion, engr.

Que., Valcartier — Secy. Dpt. Munitions & Supply, Ottawa, Ont., small arm experimental station. About $50,000.

Bids Asked November 20

Ga., Augusta—Augusta Housing Auth., c/o H. R. Powell, ex. dr., Olmstead Homes exten. housing, Proj. Ga. 1-1A. Merry & Parsons, SFC Bldg., archt. CD 6/16—ENR 6/26.

†Pa., Middletown—U. S. Eng., 332 Post Office Bldg., Baltimore, Md., administrative bldg., Olmstead Field.

Bids Asked November 21

Calif., Barstow—Purchasing agent Bureau Power & Light, 205 S. Bway., Los Angeles, Spec. 3981, group patrol bldgs., east of Beacon Inn. $68,500. CD 8/5—ENR 8/7.

Calif., Upland—Upland Housing Auth., City Hall, 50 unit housing, Upland, 50 unit, Vineyard Village, 25 unit, Guasti, all 1 story, reinforced brick, $550,000. A. Monaco, 3021 Waverly Dr., Los Angeles, archt. [illegible] 524 S. Spring St., Los Angeles, [illegible] R. Storms, 816 W. 5 St., Los An[illegible] engr. CD 5/8—ENR 5/15.

†Utah, Ogden—U. S. Eng., Hill [illegible] plane repair bldg., Hill Field. CD[illegible] 8/14.

Bids Asked November 22

P. R., Ponce—Municipal Housing [illegible] Ponce, P. R., 578 housing units, P[illegible] 1-7. USHA. CD 3/14—ENR 3/20.

Bids Asked November 24

N. Y., Brooklyn—Dpt. P. Wks., [illegible] Bldg., New York, steam, brine [illegible] piping and equip. for power plant [illegible] work, Greenpoint Hospital.

N. C., Durham—Bd. Educ., vocation[illegible] $150,000. R. R. Markley, Durham[illegible] CD 4/10—ENR 4/17.

Pa., Chester—Chester Housing Au[illegible] Welsh Sts., 350 unit housing, Proj. Pa[illegible] USHA.

Pa., Monaca—Beaver County Housing [illegible] 104 unit housing, Proj. Pa-14-1, and [illegible] housing, Proj. 14-2. USHA.

Bids Asked November 25

†Idaho, Boise—U. S. Eng., 628 Pittock Blk., Portland, Ore., emergency powerhouse and bombsight storage bldg. addns., Boise Airport, Inv. 698-42-291. CD 6/23—ENR 6/26.

†Mich., Oscoda—U. S. Eng., 613 Federal Bldg., Detroit, bachelor officers' quarters, mess bldg., utilities, ordnance magazine, storehouse, gravel roads, etc., at Camp Skeel, 3 mi. northwest of here; adv. ENR 11/13.

N. C., Asheville—Asheville Housing Auth., 82 unit housing, Proj. NC 7-1. USHA. CD 6/11—ENR 6/19.

★**O., Cleveland**—Metropolitan Housing C[illegible] E. J. Bohn, secy., West Mall Dr., Oglebay Outhwaite Housing exten. $3,000,000. Smi[illegible] Smith & Reeb, Terminal Tower, archts. Jo[illegible] Paul Jones, Cary, & Miller, Terminal Tower, mechanical engrs. CD 5/7—ENR 5/15.

Bids Asked November 26

†Calif., Alameda—Pub. Wks. Officer, Administration Bldg., Naval Air Sta., Alameda, 3 story, 140x180 ft. rein.-con. storehouse, exten.

N. Y., Deer Park—State Dpt. Mental Hygiene, Albany, Kitchen and Dining Bldg., State Hospital. $150,000. Extended date W. Haugaard, comr. Architecture, and A. W. Brandt, supt. P. Wks., both State Office Bldg., Albany. CD 9/18—ENR 9/25.

Pa., Uniontown—Fayette Co. Housing Auth., H. Mulligan, exec. dir., Union Trust Bldg., 200 family 1 and 2 story, bsmnt., Bierer Wood Acres housing development, Proj. Pa. 15-1, South Union Twp., near here. J. H. Harmon, E. R. Johnston, H. W. Altman, 305 Union Trust Bldg., archts. A. Dzubay, 74 N. Fremont Ave., Pittsburgh, plumbing engr. P. A. Edwards, Wabash Bldg., Pittsburgh, heating engr. E. T. Woesmann, Thaw Bldg., electrical engr. CD 5/7—ENR 5/15.

Bids Asked November 28

†California—Bureau Reclamation, Old Post Office Bldg., Sacramento, garage and warehouse, Coleman Station for migratory-fish control, Kenneth Div., Central Valley Project, Spec. 1587-D.

Pa., Pittsburgh—Pittsburgh Housing Auth., 1305 Law and Finance Bldg., 244 unit housing, Proj. Pa-1-5. USHA.

Bids Asked December 1

Ala., Anniston—Anniston Housing Auth., 92 unit housing, Proj. Ala. 4-2. USHA. CD 7/24—ENR 7/31.

Ill., Rock Island—Bd. Educ., Rock Island, Grant School addn. $150,000. Cervin A. Stuhr, Rock Island, archts. CD 3/11—ENR 3/13.

S. C., Rock Hill—Abbatoir, A. D. Gilchrist, Rock Hill, archt.

Bids Asked December 2

D. C., Wash.—Alley Dwelling Auth., Wash., D. C., 280 housing units, Project D. C. 1-3. USHA.

Bids Asked December 4

†Ark., Mountain Home—War Dpt., Little Rock, 13 dwellings, garages, etc. Government Village, Inv. 777-42-35.

Bids Asked December 5

P. R., Maya-guez—Municipal Housing Auth. of Maya-guez, 337 housing units, Project P.R. 4-2. USHA. CD 7/31—ENR 8/8.

Bids Asked December 6

Mass., Chicopee—Chicopee Housing Auth., 250 unit housing, Proj. Mass. 8-1. USHA. CD 9/25—ENR 10/2.

Bids Asked December 10

★**Kan., Kansas City**—City, c/o C. A. Lowder, municipal power plant addn. $500,000. Burns & McDonnell, 107 W. Linwood Blvd., Kansas City, Mo., engrs.

N. C., Concord—Concord Housing Auth., two 46 unit housing, one Proj. NC 8-1 and other Proj. NC 8-2. USHA. CD 9/25—ENR 10/2.

R. I., Providence—Providence Housing Auth., 278 unit housing, Proj. RI-1-A and 120 housing unit, Proj. RI-1-3. USHA. CD 8/27—ENR 9/4.

†S. C., Charleston—Pub. Wks. Officer, Charleston Navy Yard, 2 story electrical shop addn. $300,000.

Bids Asked December 11

Ala., Fairfield—Fairfield Housing Auth., 100 unit housing, Proj. Ala-10-1. USHA. CD 9/25—ENR 10/2.

PUBLIC BLDGS. (Bids Asked, Cont'd.)

Bids Asked December 12

Ky., Somerset—Somerset Municipal Housing Comm., 34 unit housing, Proj. Ky-8-1. USHA. CD 8/13—ENR 8/21.

Bids Asked December 15

Ala., Montgomery—Montgomery Housing Auth., 212 unit housing, Proj. Ala. 6-3, and 44 unit housing, Proj., Ala. 6-5. USHA. CD 9/25—ENR 10/2.

Conn., Middletown — Middletown Housing Auth., 202 unit housing, Proj. Conn.-9-1. USHA. CD 6/30—ENR 7/3.

Ky., Owensboro—Owensboro Municipal Housing Comm., 124 unit housing, Proj. Ky-9-1, and 50 unit housing, Proj. Ky-9-2. USHA. CD 10/23—ENR 10/30.

Va., Martinsville — Martinsville Housing Auth., 44 unit housing, Proj. VA.-9-1. USHA. CD 9/10—ENR 9/18.

Bids Asked December 16

P. R., San Juan—Puerto Rico Housing Auth., San Juan, P. R., 402 housing units, Project P. R.-2-3. USHA. CD 2/8—ENR 2/15.

Bids Asked December 18

Ala., Tarrant—Tarrant Housing Auth., 54 unit housing, Proj. Ala.-13-1. USHA. CD 9/25—ENR 10/2.

P. R., Ponce—Municipal Housing Auth., Ponce, P. R., 280 housing units, Project P. R.-1-2. USHA. CD 4/23.

Bids Asked December 21

Ala., Dotham—Dotham Housing Auth., two 100 unit housing, one Proj. Ala.-7-1 and other Proj. Ala.-7-2. USHA. CD 3/26—ENR 4/3.

Bids Asked December 23

Ga., Cedartown—Cedartown Housing Auth., 54 unit housing, Proj. GA 25-1. USHA. CD 9/25—ENR 10/2.

Bids Asked December 24

Ga., Albany — Albany Housing Auth., 48 unit housing, Proj. Ga. 23-1; 56 unit housing, Proj. Ga. 23-2. USHA. CD 7/24—ENR 7/31.

Bids Asked December 30

Ala., Guntersville — Guntersville Housing Auth., Guntersville, 40 unit housing, Ala. 14-1, and 10 unit housing, Ala. 14-2. $203,000. E. J. Ladd Eng. Co., Fort Payne, engrs. R. Henry, Guntersville, and M. H. Tardy, Gadsden, archts. CD 9/30—ENR 10/2.

Bids Asked

Mass., Methuen—Dpt. Streets, 290 Broadway, 1 story, brick, steel utility bldg., municipal garage, shops, etc., $45,000. Ashton & Huntress, 477 Essex St., Lawrence, archts. CD 9/26—ENR 10/2.

LOW BIDDERS

†**Calif., Burbank**—Vega Airplane Co., 2555 N. Hollywood Way, Nov. 5, 4 story, 40x270 ft., rein.-con., steel office bldg. addn., for War Dpt., from H. W. Baum & Co., 232 S. Van Ness Ave., Los Angeles. **$329,600.** Defense Plant Corp. will finance. CD 10/16—ENR 10/23.

Calif., Los Angeles—Housing Auth. O City of Los Angeles, 1031 S. Bway., Nov. 4, 214 unit Estrada Courts Housing, 8 St., Grande Vista and Concord St., from H. Gorelnik, 117 S. Poinsettia Pl., **$461,509.** Est. $996,000. CD 10/21—ENR 10/23.

†**Fla., Panama City**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., Nov. 3, 150 housing units, Gunnery Flying School, Project 8101 X, from J. L. Ewell, 601 W. Loman St., Lakeland. **$412,890.** CD 10/24—ENR 10/30.

†**Md., Curtis Bay (Sta. Baltimore)**—Treas. Dpt., Coast Guard Yard, Curtis Bay, Nov. 6, officers quarters, U. S. Coast Guard Yard, from Lange Bros., 816 E. Belvidere Ave., Baltimore. **$474,000.** Est. $300,000. CD 10/17—ENR 10/23.

★†**N. J., Dover**—Pub. Bldgs., Admin., 7 and D Sts. S.W., Wash., D. C., Nov. 3, 300 housing units, S Salem St., from Rudolph R. Corrado, Inc., 58 E. Park St., Newark, base bid **$1,118,600.** CD 10/24—ENR 10/30.

★†**N. J., Dover**—Con. Q. M., Nov. 4, fifteen 1 and 2 story masonry bldgs., coal storage facilities, etc., Picatinny Arsenal, from La Sala Mason Corp., 155 E. Moshlu Pkwy. N., New York, N. Y., **$529,000.** CD 10/22—ENR

†**N. H., Manchester**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., refigured bid 85 dwelling units, Weston Rd., Project 27021 X, from Hanna Bros., Inc., 415 Lexington Ave., New York, N. Y. **$366,726.** Est. $295,000. CD 10/23—ENR 10/30 under LB.

†**Pa., Monaca** — Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, Nov. 6, 100 defense housing units, Project 36059X, from Navarro Corp., 6210 Broad St., Pittsburgh. **$423,000.** CD 11/5.

†**R. I., Newport**—Pub. Wks. Officer, Naval Training Station, Nov. 7, amphitheatre, service utilities, etc., Naval Training Station, Spec. 10677, from Platt Contg. Co., Inc., 169 Bridge St., Cambridge, Mass. **$143,500,** alt. **$145,500.** CD 10/28—ENR 10/30.

CONTRACTS AWARDED

†**Ariz., Tucson**—U. S. Eng., 1 and Douglas Sts. N.W., Wash., D. C., ordnance bldgs., Tucson Municipal Airport, to M. M. Sundt Constr. Co., Tucson, **$157,270.** Awarded 10/22.

★**Calif., Mather Field**—U. S. Eng., 208 Post Office Bldg., Sacramento, supplemental contract additional bldgs., aalso landing strips, runways, taxiways, to E. J. Twaits Co., 816 W. 5 St., Los Angeles, **$1,102,285** and **$875,285** respectively. Additional to 5/13—ENR 5/15 under CA.

Calif., San Francisco—Regents University of California, Berkeley, generator plant for University of California Hospital, to W. S. Leland Co., 55 New Montgomery St. **$121,810.**

†**Conn., Waterbury**—Waterbury Tool Div. of Vickers, Inc., 188 E. Aurora St., 1 story, 200x360 ft., brick, steel factory, to Brown & Matthews, Inc., 122 E. 42 St., New York, N. Y. **$300,000.** Defense Plant Corp. will finance.

★†**Fla., Key West**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., supplemental agreement naval hospital, Contr. NOY 4849, to The Mackle Co. & Leach Constr. Co., 2818 Coral Way, Miami. Est. **$800,000** incl. fee.

★†**Florida**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., supplemental agreement additional facilities, Naval Air Sta. and Naval Hospital, Jacksonville, and Naval Air Sta., Banana River, to Duval Eng. & Contg. Co., The Geo. D. Auchter Co. and Batson-Cook Co., foot of E. Adams Sts., Jacksonville. Est. **$2,514,401** incl. fee.

★**Ill., Rockford** — Winnebago Co. Housing Auth., Rockford, 200 housing units, Blackhawk Court, to Paul Steenberg Constr. Co., W1757 1st Natl. Bank Bldg., St. Paul, Minn. **$732,891.** Bids 10/6. CD 10/8—ENR 10/16, under LB.

★†**Kan., Kansas City**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash, D. C., 350 defense housing units, Project 14031 X, to J. E. Dunn Constr. Co., Inc., Reliance Bldg., Kansas City, Mo. **$1,387,346.** Bids 10/15, awarded 10/27. CD 10/20—ENR 10/23.

†**Me., Rockland**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., renovating freight shed, Tillson Wharf, NOY 5089, to H. L. Levenseler, West Meadow Rd., **$10,000.**

†**Md., Baltimore**—Koppers Co., American Hammered Piston Ring Div., Bush and Henry Sts., plant alterations, addns., to Leimbach & Williams, 30 W. Biddle St. **$200,000.** Defense Plant Corp. will finance. CD 11/6.

Mass., Lynn—Stevens, Curtin, Mason & Riley, archts., 45 Newbury St., 5 story, 45x130 ft., grantie, cast stone brick, steel hospital, Boston St., for Lynn Hospital, D. Traner, supt., 212 Boston St., to McCutcheon Co., 250 Stuart St., Boston. Est. **$350,000.** Bids 10/7. CD 9/23. ENR 9/25.

★†**Md., Middle River (br. Baltimore)**—Farm Security Admin., The Mall between 12 and 14 Sts. S.W., Wash., D. C., 600 houses, to Allied Housing Associates, Inc., Langhorne, Pa., **$1,581,000****400 houses, to Stansbury Manor Corp., Middle River, **$1,078,000****100 duplex houses, to Home Building Corp., 456 E. 44 St., Kansas City, Mo., **$284,000.** Grand total $2,943,000. CD 10/7—ENR 10/9, under LB.

†**Mass., Newton**—Zenith Products Co., 58 Chestnut St., 1 story, 120x200 ft. brick, steel, concrete factory for manufacture hydraulic pumps and motors for Navy Dpt., to Austin Co., 19 Rector St., New York, N. Y. Est. **$150,000.** Defense Plant Corp. will finance. CD 10/29—ENR 11/6.

★†**Mass., South Boston (Sta. Boston)**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., storehouse, Naval Dry Dock, Contr. NOY 5093, to Matthew Cummings Co., 38 Chauncey St., Boston. **$686,000.**

★†**Mass., Springfield**—Con. Q.M., Springfield Armory, 1st story, 120x280 ft. 2nd and 3rd stories, 80x280 ft., brick, steel, concrete gun stock plant, to E. J. Pinney Co., Inc., 220 Dwight St. **$556,760.** CD 10/30—ENR 11/6.

★†**N. H., Portsmouth**—Yards & Docks, Navy Dpt., 18 St. aand Constitution Ave. N.W., Wash., D. C., power plant imprvs., Navy Yard, NOY 5090, to H. A. Kulijan & Co., 1518 Walnut St., Phila., Pa., **$1,470,000.**

†**N. J., Newark**—Titeflex Metal Hose Co., 500 Frelinhuysen Ave., altering 3 story, bsmnt. bldg. and converting same into radio equip. mfg. bldg., Frelinghuysen Ave., for Navy Dpt., to Fatzler Co., 653 S. 15 St., **$50,000** plus. Defense Plant Corp. will finance. CD 7/17—ENR 7/24.

★**N. Y., Brooklyn**—Bd. Educ., 110 Livingston St., general contract P.S. 35 addn., Lewis Ave., McDonough and Decatur Sts., to Caristo Constr. Corp., 26 Court St. **$646,560.** CD 9/22—ENR 9/25, under LB.

†**O., Akron**—Firestone Tire & Rubber Co., 1278 S. Main St., 1 and 2 story, 90x260 ft. brick, steel synthetic rubber factory, to Carmichael Constr. Co., 148 E. Miller Ave. Bids 10/8, awarded 10/15. Defense Plant Corp. will finance. CD 9/20—ENR 10/2.

★†**O., Cleveland**—National Advisory Com. for Aeronautics, E. R. Sharp, constr. administrator, Langley Field, Hampton, Va., fuel and lubricants bldg., Cleveland Airport, to James McHugh, 6449 S. So. Park St., Chicago, Ill., **$694,000.** CD 10/23—ENR 10/30.

O., Dover—General contract light plant addn., to Wendling Bros., Dover. **$167,000.** Awarded 10/30. CD 6/23—ENR 6/26.

O., Hamilton—New boilers for municipal electric power and light plant, N. 3d St., to Combustion Eng. Co., Inc., 200 Madison Ave., New York, N. Y. **$210,237.** Bids 9/11. CD 8/25—ENR 8/28.

★†**O., Painesville**—Diamond Alkali Co., Fairport Harbor, plant for manufacture magnesium, to Austin Co., 1612 Euclid Ave., Cleveland. Est. **$16,000,000.** Defense Plant Corp. will finance.

★†**Pa., Chester**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., 250 defense housing units, etc., Site 2, Delaware Co., Project 36261X, to Nelson-Pedley Inc., 12 S. 12 St., Philadelphia. **$967,000.** CD 8/8—ENR 8/14.

★†**Pa., Chester**—Pub. Bldgs. Admin., 7 and D Sts. S.W., Wash., D. C., 300 housing units, etc., Project 36721X, to Monahan-McCann Corp., 100 Roanoke Ave., Newark, N. J. **$1,219,000.** CD 7/30—ENR 8/7.

★†**Pa., Vanport**—Beaver County Housing Auth., R. Bennett, chn., Court House, Beaver, 125 defense housing units for USHA, Project 36053 X, to J. W. Ryan Constr. Co., Inc., 369 Lexington Ave., New York, N. Y. **$532,855.** CD 10/28—ENR 10/30.

S. C., Charleston—The Citadel, barracks, to V. P. Loftis, Builders Bldg., Charlotte, N. C. **$358,869.** CD 10/16—ENR 10/23.

†S. C., Charleston—Con. Q.M., Charleston, administration bldg., guardhouse and fire station, Ordnance Depot, to Dawson Eng. Co., Inc., 10 Gillon St. **$126,767.** CD 6/17—ENR 6/19.

†S. C., Columbia—Con. Q.M., 494 Spring St. N.W., Atlanta, Ga., 2 story, L shaped, brick, frame recreation bldg., Laurel Hill, adjacent to Assembly St., to M. B. Kahn Constr. Co., 714 Lady St. Over **$200,000.** CD 10/24

†Tex., Camp Normoyle (San Antonio)—Constr. Q. M., Camp Normoyle, motor transport and storage bldg. unit, to V. & A. Falbo, c/o Bldrs. Exch., San Antonio. **$120,498.**

Tex., Kilgore—Bd. Educ., Kilgore, brick, concrete, Junior College, to R. J. Bell & Co., Kilgore, approx. **$150,000.** CD 9/26. ENR 10/2.

†Tex., Wichita Falls—U. S. Eng., c/o Citizens Bank Bldg., Denison, patients recreation bldg., facilities, swimming pool, court etc., Sheppard Field, to Eckert-Fair Constr. Co., Liberty Bank Bldg., Dallas. **$58,200.** Bids about 10/4. CD 10/29.

★†**Utah, Monticello** — Vanadian Corp. of America, 420 Lexington Ave., New York, N. Y., manufacturing plant, to Stearns-Roger Mfg. Co., 1720 California St., Denver, Colo. **$193,000** for land and bldgs., **$532,000** for machinery and equip. Defense Plant Corp. will finance.

★†**Va., Falls Church**—United States Housing Auth., Interior Bldg. (North), 18 and F Sts. N.W., Wash., D. C., 160 defense housing units, Project 44137X, to C. B. Ross Co., Inc., 2 Lafayette St., New York, N. Y. **$607,000.** Bids 10/20.

★†**Va., Norfolk**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., supplemental agreement additional facilities, Naval Air Sta., Naval Supply Depot, Naval Operating Base, Contr. NOY 4158, to Virginia Eng. Co., Inc., Newport News. Est. **$3,627,000** incl. fee. Additional to CD 7/15—ENR 7/17, under CA.

★†**Va., Norfolk**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., supplemental agreement, additional facilities, Naval Operating Base, Contr. NOY 4384, to Byrne Organization, 2701 N. Fitzhugh St., Dallas, Tex. Est. **$1,437,000** incl. fee. Additional to CD 10/18/40 and 7/15/41—ENR 10/24/40 and 7/17/41, under CA.

†**Wash., Bremerton**—Puget Sound Navy Yard, Bremerton, Naval hospital main bldg. addn., Spec. 10683, to M. Kuney & L. Johnson, Lloyd Bldg., Seattle. **$150,757.** Bids 10/29. CD 10/16.

★†**Wash., Bremerton**—Yards & Docks, Navy Dpt., 19 St. and Constitution Ave. N.W., Wash., D. C., ammunition magazine, Indian Island, near here, to The Austin Co., 16112 Euclid Ave., Cleveland, O. **$826,300.** CD 8/13—ENR 8/21.

†**Wash., Seattle**—Yards & Docks, Navy Dpt., 18 St. and Constitution Ave. N.W., Wash., D. C., buildings, Sand Point Naval Air Station, to The Austin Co., 16112 Euclid Ave., Cleveland, O. **$284,200.**

★†**Wis., Beloit**—Fairbanks-Morse Co., Beloit, 1 story, 487x663 ft., steel engine shop and weldery bldg., for Navy Dpt., separate contracts. **$5,500,000** incl. equip. W. Fred Dolke, 2204 Merchandise Bldg., Chicago, Ill., archt. Cunningham Bros., Beloit, engrs. CD 10/31—ENR 11/6.

★†**Wis., Merrimack**—Hercules Powder Co., Delaware Trust Bldg., Wilmington, Del. General Contract Powder Plant, for War Dpt., to Bechtel-McCone-Parsons Corp., 601 W. 5 St., Los Angeles, Calif., **$65,000,000.** CD 10/30 ENR 11/6.

Que., Sorel—Wartime Housing Ltd., 55 York St., Toronto, Ont., 100 prefabricated houses, to Cottingham Supply Co., Ltd., Bethany Rd., Lachute, about **$220,000.**

COMMERCIAL BUILDINGS

PROPOSED WORK

Calif., Inglewood—Inglewood Farmers Market, Inglewood, plans by H. A. Schenck, architects and engrs., 7426 S. Harvard Blvd., Los Angeles, 175x450 ft., frame shopping center, on 5 acre site, W. Hillcrest Ave. and Isis Ave. Over $150,000.

COMMERCIAL BLDGS. (Proposed Work, Cont'd.)

Calif., Vallejo—W. Syufy, Rita Theatre, rein.-con., steel theatre. $150,000.

Ind., Richmond—Earlham College, 3 story, brick, steel dormitory. $225,000.

Me., Portland—Owner, c/o J. H. and J. C. Stevens, archts., 187 Middle St., forty units, 1½ and 2 story, frame, concrete houses, $200,000.

★**N. J., Englewood**—Englewood Hospital, 350 Engle St., brick, steel, hospital addn. $600,000. Applied for DPW funds.

N. J., Hasbrouck Heights — Hasbrouck Heights Hospital, 272 Columbus Ave., plans by T. Paterson, 1 Madison Ave., New York, 3 story, bsmnt., brick, steel hospital addn., Terrace Ave. $246,550. DPW funds applied for.

N. J., Kearny—West Hudson Hospital, 206 Bergen Ave., hospital addn., Bergen Ave. $250,000. DPW funds applied for. Huesmann & Osborne, 15 Orient Way, Rutherford, archts.

N. J., Long Branch—Monmouth Memorial Hospital, 3 Ave., plans by Epple & Kahrs, 15 Washington St., Newark, 4 story, bsmnt., brick, steel hospital addn., 3 Ave. $499,900. Applied for DPW funds.

N. J., Newark — F. W. Woolworth Co., Woolworth Bldg., New York, N. Y., plans by A. J. Winter, Woolworth Bldg., New York, N. Y., 3 or 4 story, bsmnt., 60x100 ft., brick, steel, stone store alterations, addns., Broad and Market Sts.

N. J., Passaic—Corp., c/o F. H. Taylor & Son, 520 Main St., East Orange, bids soon 3 story, bsmnt., brick apartment, Paulson Ave. $225,000. I. Naftali, 921 Bergen Ave., Jersey City archt. CD 8/19—ENR 8/21.

N. J., Raritan—Roosevelt Park Homes, Inc., Lafayette and 3 Sts., plans by G. E. Carman, 33 Clarendon Center, Metuchen, 100 two story, bsmnt. frame, shingle homes. $450,000.

N. Y., New York—Bank for Savings, 280 4 Ave., New York, plans by H. H. Lilien, 215 E. 149 St., 6 story, 90x150 ft. apartment, 303 W. 52 St. $200,000.

N. C., Greensboro—Greensboro College, L. L. Gobbel, pres., plans by P. N. Yountz, consult. archt., Middlefield, Mass., library. Over $150,000. Campaigning for funds.

★**O., Columbus** — Builders Guild, Inc., 744 High St., 125 defense homes, east of James St. between Broad and Main St. $500,000.

★**Pa., Phila.**—Garden State Racing Assn., Landis Ave., Vineland, N. J., plans by J. C. Remington, 509 Cooper St., Camden, N. J., club house, grandstand. $1,500,000.

★**Tex., Galveston**—St. Mary's Infirmary, 715 Market St., c/o C. E. Byrne, bishop, 1402 Bway., plans by R. R. Rapp, Guaranty Bldg., 6 story hospital, 7 St. and Avenue E. $600,000.

Tex., Sherman — Sherman Housing Corp., c/o R. L. Hall, Sherman, plans by E. T. Glasgow, 618 Insurance Bldg., Fort Worth, thirty 1 story, 34x37 ft. frame dwellings. $175,000. CD 8/29—ENR 9/4.

Wash., Spokane—B. Throop, N4807 Wall St., 60 houses, Montgomery and Belt Sts. $250,000.

Wis., Milwaukee—St. Lukes Hospital Assn., 230 W. Madson St., 250 bed hospital. Over $150,000. G. J. De Gelleke, 152 W. Wisconsin Ave., consult. archt.

BIDS ASKED

N. B., Saint John—Manchester Robertson Allison, Ltd., 27 King St., store addn. $150,000.

LOW BIDDERS

Nev., Las Vegas—Janns Investment Corp., 1081 Westwood Blvd., West Los Angeles, Calif., Oct. 31, 2 story, 125x130 ft., main store bldg., 1 story, 50x150 ft. accessory and warehouse, from Vincent-Peterson Co., Dooly Bldg., Salt Lake City, Utah. Est. over $150,000. R. H. Crawford, 9397 Wilshire Blvd., Beverly Hills, Calif., archt. CD 10/14—ENR 10/16.

CONTRACTS AWARDED

Calif., Altadena—Individual owners, c/o contractor, 102 wood frame dwellings, Lincoln Ave. and Foothill Blvd., to Churchill Constr. Co., 5655 Wilshire Blvd., Los Angeles. $300,000. Wm. Allen & G. Lutze, 5655 Wilshire Blvd., archts.

★**Calif., Inglewood** — Homes at Wholesale, 5601 Manchester Ave., 120 five room dwellings (total 650), Tract 12574, vicinity Mines Field, near Los Angeles Municipal Airport, to J. Paul Campbell, 5601 Manchester Ave. Total est. approx. $1,500,000.

Calif., San Francisco—F. H. and E. Thorinsen, 1608 Ocean Ave., 1 story, bsmnt., wood frame homes, vicinity Waterville and Thornton Aves., day labor. Over $150,000.

Mass., Longmeadow—W. J. Quinn Co., 16 Edson St., 25 or more homes, Longmeadow St. Owner builds. $150,000.

★**N. J., Fair Lawn**—Fair Lawn Knolls, 529 William St., Maywood, one hundred 2 story, bsmnt., 24x30 ft., wood siding, brick veneer on frame homes, E. Fairlawn Ave., separate contracts. $500,000. P. H. Butler, 263 Elm Ave., Teaneck, archt. CD 10/28—ENR 10/30.

N. J., West Orange—Essex Co. Country Club, Hutton Park, 2½ story, bsmnt., 68x212 ft., brick country club house, Prospect Ave., to Adams Faber Co., 241 Lorraine Ave., Montclair, $200,000. H. McDonnell, 101 Park Ave., New York, N. Y. archt. CD 10/15—ENR 10/24.

N. Y., Brooklyn — Kingly Realty Corp., 16 Court St., 42 one family homes, Bay 13 St. and Shore Road exten. Owner builds. $197,700. O. I. Silverstone, 153 Pierrepont St., archt.

★**N. Y., New York**—Fidelity & Deposit Co. of Maryland, 99 John St., 6 story, 55x100 ft., limestone, red brick office bldg., 138-140 William St., to Geo. A. Fuller Co., 597 Madison Ave., Est. $500,000. CD 6/27—ENR 7/3.

N. Y., Rockaway Point (sta. Brooklyn)—Rockaway Point Development Corp., Rockaway Point, 39 one family homes, Utica Walk. Owner builds. $390,000. J. H. Cornell, 21-02 Mott Ave., Far Rockaway, archt.

O., Cleveland — Sears-Roebuck & Co., C. Kellstadt, local mgr., 8501 Carnegie Ave., plans by Nimmous, Carr & Wright, 333 N. Michigan Blvd., Chicago, Ill., 1 story 75x75 ft. farm store bldg., 1 story, bsmnt. 80x180 ft., brick, steel commercial bldg., paving, draining, lighting, new parking space, to Albert M. Higley Co., 2036 E. 22 St. Est. $240,000. CD 3/12—ENR 3/20.

O., Shaker Heights (br. Cleveland)—S. Zehman, 1915 Powell Rd., Cleveland Heights, plans by M. P. Halperin, Prospect-Fourth Bldg., 10 brick veneer houses. Owner builds. $200,000.

O., Painesville — Bon Young, Inc., Painesville, 25 homes, to Bob Byers Builders, Inc., 815 North Nelson Rd., Columbus. $150,000. Awarded 10/31.

★**Pa., Munhall**—Munhall Farms Co., Inc., L. H. Renshaw, chg., Easton, Md., 112 residences, Munhall Terrace, Munhall Farm, 54 brick, frame residences, Munhall Farms, Homestead-Duquesne Rd., to O. H. Martin, 513 N. Homewood Ave., Pittsburgh. Est. $800,000. A. B. Mills, 1758 Columbia Rd., N.W., Wash., D. C., archt.

Pa., Phila.—J. E. Fieldstein, Bankers Security Bldg., residences. Owner builds. Over $170,000.

Pa., Phila.—H. Korman, Inc., 6033 Castor Ave., residences, Creston St. Owner builds. $150,000.

Pa., Phila.—J. F. Nolen & Son, 1716 Cheltenham Ave., 40 residences. Owner builds. $150,000.

Pa., Phila.—M. K. Stevens, Franklin Trust Bldg., residences. Owner builds. $150,000. G. S. Idell, Corn Exch. Bldg., archt.

Pa., York—J. C. Hoffman, Hillcroft, York, first units 22 dwelling housing, 30 acre site, Hillfroft Village Sect. Owner builds. Total est. $150,000. CD 10/29—ENR 11/6.

Tenn., Knoxville — Fidelity Bankers Trust Co., 502 S. Gay St., 40 residences, day labor. $150,000.

Tex., San Antonio—C. T. Roberts, 2115 W. Woodlawn St., 30 or more, frame, concrete dwellings, force account. $150,000.

INDUSTRIAL BUILDINGS

PROPOSED WORK

Calif., Berkeley — PLANT — Pacific Steel Casting Co., 1316 2 St., plant. Over $40,000.

Calif., Burbank—PLANT, etc.—Coca Cola Bottling Co., 1334 S. Central Ave., Los Angeles, bottling plant and warehouse, San Fernando Rd. between Scott and Delaware Rds. $150,000.

Calif., San Francisco — SHOPS, etc. — Ken Royce Constr. Equipment Co., 185 Bayshore Blvd., shops and warehouse expansion. $40,000. W. H. Ellison, Pacific Bldg., engr.

Calif., San Pedro—REFINERY—Union Oil Co., Union Oil Bldg., Los Angeles, toluene refinery. Over $40,000.

★**Ill., Dixon** — PLANT — Illinois Northern Utilities Co., Dixon, 50,000 kw. turbo-generator plant. $6,000,000.

Ind., Vincennes—PLANT—Link Eng. Corp. of Ill., c/o Vincennes Chamber Commerce, remodeling bldgs. manufacturing c.i. pipe, fittings. Over $40,000 with equip.

Md., Fairfield (sta. Baltimore)—SHOP, etc. —Maryland Dry Dock Co., Fairfield, soon lets contract 70x120 ft. machine shop, 180x200 ft. electric shop, etc., concrete, brick, steel, for shipbuilding plant. J. E. Greiner Co., 1201 St. Paul St., Baltimore, engrs.

Mass., Lowell—BOTTLING PLANT—Lowell Coca Cola Co., Inc., 682 Aiken St., soon lets contract remodeling brick bottling plant, First St. $40,000. E. C. Howard, Jr., Butler City Natl. Bldg., Butler Pa., engr. CD 6/19—ENR 6/26.

Mass., Natick—PLANT—Coca Cola Bottling Co., 30 Washington St., Boston, 1 and 2 story, brick, steel bottling plant, Worcester Turnpike, $65,000. J. M. Shelton, Bona Allen Bldg., Atlanta, Ga., engr.

★**Mass., Pittsfield**—PLANT—General Electric Co., Morningside St., W. H. Milton, Jr., mgr., Plastics Dpt., 4 units, brick, steel phenol plant, $1,000,000.

Mich., Bay City—PLANT—Dow Metal Div. Dow Chemical Co., Bay City, and Midland, 1 story, 100x200 ft., brick, steel plant. About $75,000.

Mich., Benton Harbor — WAREHOUSE — Michigan Fruit Canners, Inc., Benton Harbor, soon lets contract 3 story, bsmnt., 78x177 ft., brick, concrete, steel receiving warehouse. $40,000. D. Lakey, 2160 Francis St. S.E., Grand Rapids, archt.

Mich., Detroit — FACTORY — [illegible] Proof Co., 2177 E. Milwaukee Ave. [illegible] Smith, Hinchman & Grylls, 800 [illegible] Bldg., 3 story, 60x130 ft., rein.-[illegible] steel factory, plain fdn. $75,000.

Minn., Minneapolis — FACTORY [illegible] Rogers Co., 2830 13 Ave. S., factor[illegible]

N. J., Hoboken—FOUNDRY—F[illegible] & Son, Inc., 1122 Clinton Ave., found[illegible] tions, addns., Grand St. $100,000.

N. J., Newark—MACHINE SHO[illegible] & Scher Co., Inc., 263 Sussex Ave[illegible] brick, steel machine shop, Sussex Av[illegible]

N. Y., Brooklyn—GARAGE—Ro[illegible] Dock & Repair Co., 1-75 Beard St[illegible] Albert Kahn & Associates, 345 [illegible] Bldg., Detroit, Mich., 2 story, 80[illegible] garage and locker room, 2-46 Ha[illegible] $75,000.

N. Y., Brooklyn—FACTORY—J. L. [illegible] 175 Riverside Dr., New York, plans [illegible] Grad & Sons, 48 Commerce St., Newark, N. J., 1 and 2 story factory, 298 Scholes St[illegible]

N. Y., Hobart—PLANT—Sheffield Farms Inc., H. L. Swain, mgr., Hobart, remodeling milk and dairy products plant, recently destroyed by fire. $40,000.

N. Y., Jamestown—WAREHOUSE—S. M. Flickinger Co., Inc., C. N. Bargar, mgr., 27 Taylor St., brick, steel, concrete wholesale grocery warehouse and distr. center, addn. Over $40,000.

N. Y., Shortsville—POWER PLANT—Grand Bag & Paper Co., H. Arthur Gilman, mgr., power plant addn. $40,000.

N. C., Aberdeen—PLANT—Botany Worsted Mills, Dayton Ave., Passaic, N. J., Col. F. H. Johnston, pres., plant on 150 acre site.

O., Cleveland—MACHINE SHOP, etc.—Barth Stamping & Machine Co., J. J. Barth, pres., 3815 W. 34 St., 2 story, 40x80 ft., brick, steel machine shop and office. $40,000. McGeorge & Hargett, 9400 Quincy Ave., engr.

O., Steubenville—BUS TERMINAL—Steubenville Bus Terminal Co., bus terminal. $150,000.

★**Okla., Rush Springs**—POWER GENERATING PLANT—Rural Electric Co-operatives, Tipton, F. Higginbotham, secy., Norman, power generating plant, southwestern Oklahoma. $2,300,000 REA allot.

Ore., Portland—FREIGHT TERMINAL—Inland Motor Freight, Inc., 1001 S.E. Water St., freight terminal on 200x260 ft. tract, N.W. 20 Ave. between Wilson and Vaughn Sts. $50,000.

Pa., Honesdale — PLANT — S. J. Bailey, Nicholson, 1 story furniture mfg. plant. $40,000 with equip.

Pa., Waynesboro—FOUNDRY—Landis Tool Co., Waynesboro, 171x306 ft. foundry addn. $450,000.

★**Tex., Daingerfield**—PLANT—W. O. Irving & Associates, Daingerfield, surveys iron ore smelting plant.

★**Tex., Daingerfield** — PLANT — Texas Iron, Steel & Coke Co., c/o W. O. Irving, pres., Natl. Bank of Daingerfield, iron ore smelting reduction plant between here and Hughes Springs. $28,000,000.

Tex., Dallas — GARAGE — Andrews Estate, c/o J. A. Pitzinger, archt., Southland Life Bldg., bids soon altering, constructing 3 story, bsmnt., 50x200 ft., hollow tile, structural steel storage garage. $100,000.

★**Tex., Grapeland**—RECYCLING PLANT—Geier & Jackson, Petroleum Bldg., Dallas, and Grapeland, absorption type recycling plant. $600,000.

Tex., Houston—PLANT — General Printing Ink Corp., 100 6 Ave., New York, N. Y., ink mfg. plant. $100,000.

Tex., McAllen—PLANT—Rio Grande Valley Citrus By-Products, Inc., McAllen, citrus pectin by-products plant exten. Over $40,000.

Tex., Sugar Land—MACHINE SHOP, etc.—Sugar Land Industries, Sugar Land, bids soon, 1 story, brick, tile, 65x100 ft., and 30x70 ft. machine shop and garage. $40,000. Wirtz, Calhoun & Willauer, 500 Stuart St., Houston, archts.

Tex., Texas City—PLANT—Pan-American Refining Co., Texas City, converting sugar refining plant into synthetic rubber, lubricating oil or TNT plant.

Utah, Mt. Emmons—POWER PLANT—Moon Lake Electric Assn., Inc., addnl. generating facilities, power plant. $50,000 REA allot. E. D. Conklin, supt., Mt. Emmons.

Wis., Antigo—PLANT—Antigo Milk Producers Co-op., plans by G. A. Krasin, Marshfield, 1 story, 36x112 ft. and 36x36 ft. milk plant addn. for cheese factory, brick, rein.-con., steel.

Wis., Milwaukee—GARAGE and SHOWROOM—Owner, c/o F. Von Grossmann, archt., 8233 N. Graylob Lane, soon lets contract 1 story, 90x100 ft., steel, concrete, stone, blocks garage and showroom.

Wis., Stiles—PLANT—Oconto Electric Co-op., E. G. Redman, mgr., Oconto Falls, hydro-electric power plant, Oconto River. $200,000. REA allot.

Wis., Sturgeon Bay—SHOP—Roen Steamship Co., 1 story, 67x102 ft., brick, steel shop to Lester Nebel, Sturgeon Bay.

Wis., Wausau—WAREHOUSE, etc.—Wausau Constr. Co. plans by Oppenhamer & Olbel, 1 story, part bsmnt., 60x90 ft., wings 30x30 ft., 18x20 ft., 20x20 ft., concrete block, steel warehouse, office bldg.

INDUSTRIAL BLDGS. (Proposed Work, Cont'd.)

Wis., Whitehall — PLANT — Land-O-Lakes Creameries, Inc., 2201 Kennedy St., N. E., Minneapolis, Minn., 2 story, 66x80 ft. milk plant, concrete, brick, tile, etc. $200,000.

★**Que., Montreal**—PLANT—T. Pringle & Son Ltd., engrs., 485 McGill St., bids soon plant addn., Maisonneuve, near here, for Canadian Vickers, Ltd., Maisonneuve. $1,000,000. CD 11/5.

Que., Montreal—PLANT—Favand & Delorme, Ltd., 385 St. Martin St., 90x273 ft. structural steel, plant exten., 30 ft. high, rein.-con. fdn. $100,000.

Que., Montreal—PLANT—Marine Chemicals Ltd., c/o H. M. Gardner, 159 Craig St. W., plant. $50,000.

Que., Montreal—FACTORY—Sweeney Barrel Co., Ltd., c/o A. I. Smith, 275 St. James St. W., factory exten. $40,000.

Que., Montreal—PLANT—United Steel Corp. Ltd., 385 St. Martin St., bids soon 1 story, 90x273x30 ft., rein.-con., structural steel plant addn., rein.-con. fdn. $100,000, equip. about $125,000.

BIDS ASKED

Bids Asked November 12

Wis., Franklin (P. O. Milwaukee)—SERVICE STATION—J. J. Jecke, concrete block, steel service station, Hys. 100 and 36. J. Topzant, 424 E. Wells St., archt.

Bids Asked

Ark., Dardanelle — COMPRESS — Planters Compress, Dardanelle, rebuilding compress. $45,000.

Conn., Stratford—PAINT STORAGE, etc.—Vought Sikorsky Div. United Aircraft Co., 550 Main St., plans by C. Wellington Walker, 1115 Main St., Bridgeport, 40x75 ft. rein.-con. paint storage bldg., two 30x93 ft. brick, steel garages, Main St. $55,000.

O., St. Marys—PLANT—Hannifin Mfg. Co., V. W. Peterson, pres., 621 S. Kolnar Ave., Chicago, Ill., superstructure 1 story, 70x220 ft. plant addn., Route 29, near west city limits. $40,000.

Pa., Corry—SHOP, etc.—H. Nelson, engr., 209 Hays Bldg., Erie, 1 story, 50 x 158 ft. shop, 1 story, 50 x 200 ft. warehouse, brick, structural steel, for Ajax Iron Wks., Corry. $50,000.

Pa., Franklin—PLANT—Chicago Pneumatic Tool Co., L. F. Hoffman, genl. mgr., 191 Howard St., general contract 1 story, 130 x 534 ft., brick, steel, concrete, steel sash, assembly bldg. addn., Howard St. $225,000. CD 11/6.

★**Tex., Port Arthur** — PLANT — Gulf Co., Port Arthur and Gulf Bldg., Houston, 2,500 bbl. daily capacity gasoline unit, incl. alkylation and Houdry-Catalytic cracking plant. $1,000,000.

CONTRACTS AWARDED

Calif., Berkeley — WAREHOUSE — Pacific Paint & Varnish Co., 1612 4 St., warehouse, to E. R. DeChene, 424 60 St., Oakland, **$41,950.**

Calif., Corona—PACKING HOUSE—Orange Heights Assn., Corona, 90x164 ft. orange packing plant and 50x65 ft. pre-cooling plant, Owner builds under supervision H. Hamm, archt. and engr., 579 N. Hollingston Ave., Pasadena. **$60,000.** CD 10/1—ENR 10/9.

Calif., Los Angeles—GRAIN STORAGE—Poultrymen's Co-operative Assn., 1513 Mirasol St., 34x78 ft., rein.-con. grain storage bldg., to Jones Hettelsater Constr. Co., 600 Mutual Bldg., Kansas City, Mo. **$40,000.**

Calif., Oakland — SHOP UNITS — Boeing School of Aeronautics, Airport, addns. for shop units, to Empire Constr. Co., 344 Harriett St., San Francisco, **$45,000.** W. D. Peugh, 333 Montgomery St., San Francisco, archt.

Calif., Oakland—FOUNDRY—Vulcan Fdry. Co., 4401 San Leandro St., foundry addns., day labor. **$40,000.**

Calif., San Jose—PLANT—Continental Can Co., 8 and Taylor Sts., can mfg. plant, to Austin Co., Ray Bldg., Oakland, **$280,000.** CD 10/8—ENR 10/16.

Conn., Danbury—GARAGE—Conley, Smith & Keane, Inc., West St., 1 story, 75 x 180 ft., brick, steel service garage, West St. Owner builds. **$40,000.** Hollis W. Kincaid, 998 Farmington Ave., West Hartford, archt.

Conn., Fairfield—PLANT—Linley Brothers Co., 67 Montauk St., Bridgeport, 1 story, bsmnt., 55x120 ft., brick, steel plant, State Street exten., to C. I. Stalhammer, 329 Mapledale Pl., Bridgeport. Est. **$40,000.** D. V. Killeen, 67 Montauk St., Bridgeport, engr.

Conn., Mianus (mail Coscob)—SHOP—Auto Ordnance Corp., 1 Wall St., New York, 1 story, 35x102 ft. shop unit, 2 story, 40x98 ft., bsmnt. research unit, brick, steel, concrete, to Blagden Constr. Corp., 420 Lexington Ave., New York, N. Y. Est. **$45,000.** J. Alden Twachtman & W. Edgar Baker, Round Hill Rd., Greenwich, archts.

Conn., Putnam—FACTORY—N G B Co., 1 story, 55x150 ft., brick, steel, concrete factory. Owner builds. **$40,000.** L. F. Caproni, 1221 Chapel St., New Haven, engr.

Conn., Stratford—PLANT—Vought-Sikorsky Div. United Aircraft Co., 550 Main St., Stratford, 1 story, 75x177 ft., brick plant addn., to E. Moss & Son, 555 Grant St., Bridgeport. $59,750. Bids 10/13. CD 10/10.

Ill., Chicago—FACTORY—R. Krasberg & Sons Co., 925 Wrightwood Ave., 1 story, 82x 187 ft. factory, Homer St. and Campbell Ave., to A. E. Nelson, 1244 E. 79 St. **$50,000.** Engineering Systems, Inc., 221 N. LaSalle St., archts.

Ill., Chicago—FACTORY—Wire Sales, Inc., 4712 Roosevelt Rd., 1 story, 105x160 ft. factory, 4640 W. 54 St., to A. E. Nelson, 1244 E. 79 St. Est. **$50,000.**

Ill., Mattoon — PLANT — Atlas Imperial Diesel Engine Co., Mattoon, general contract plant addn., to R. Hart, Mattoon. Est. over **$40,000** incl. equip.

Mass., New Bedford — PLANT — Hathaway Mfg. Co., 97 Cove St., 3 Story, 42x75 ft., brick plant addn., to G. P. Williams, 25 Prospect St., South Dartmouth. Est. **$40,000.**

★**Mass., Pittsfield**—PLANT—General Electric Co., Morningside St., W. H. Milton, Jr., mgr. Plastic Dpt., 4 units, brick steel phenol plant, to The Lummus Co., 420 Lexington Ave., New York, N. Y. Est. **$1,000,000.** CD 11/10—ENR 11/13.

Mo., St. Louis—PAINT SHOP—Anheuser-Busch, Inc., 721 Pestalozzi St., 1 story, 110x 114 ft., brick paint shop, 3000 S. 9 St., to Fruin-Colnon Contg. Co., 502 Merchants-Laclede Bldg. Est. approx. **$40,000.** L. Kehr, c/o owner, archt.

N. J., Belleville — STORAGE — Wallace & Tiernan Co., Inc., 11 Mill St., 1 story, 60x220 ft., concrete block, steel storage bldg., Mill St., to Mahony-Troast Constr. Co., 657 Main Ave., Passaic. W. C. Pattison, 133 Van Houten Ave., Passaic, archt.

N. J., Clifton — PLANT — Western Electric Co., 100 Central Ave., Kearny, altering interior plant and constructing outside elevator shaft with elevator, railroad siding, etc., Main Ave., to Hugh Montague & Sons Co., 880 Bergen Ave., Jersey City.

†**N. J., New Brunswick** — PLANT — Pepsi Cola Co., 47-33 St., Long Island City, New York, 1 story, 100x100 ft., brick, steel bottling plant addn., Livingston Ave., to Rheinstien Constr. Co., Inc., 21 E. 40 St., New York. Est. **$50,000.** Harrison, Fouilhoux & Abramowitz, Rockefeller Plaza, New York, N. Y., archts.

N. J., North Bergen — PLANT — Sier-Bath Co., 9250 Hudson Blvd., 1 story, bsmnt., brick, steel factory addn., to Bonanno Constr. Co., Inc., 8733 Tonnelle Ave. **$50,000.** CD 2/5—ENR 2/13.

N. J., Passaic—SHOP — Robins Conveying Belt Co., 270 Passaic Ave., 1 story, 62x254 ft., brick, steel structural shop addn., to Mahony-Troast Constr. Co., 657 Main Ave. W. C. Pattison, 133 Van Houten Ave., archt.

N. Y., Brooklyn—FACTORY—Vulcan Proofing Co., 5622-28 First Ave., altering 2 story factory, 5622-28 First Ave., to John H. Eisele Co., 18 E. 41 St., New York. Est. **$50,000.** CD 10/30—ENR 11/6.

N. Y., Long Island City—FACTORY—Liquidometer Corp., 35-16 Skillman Ave., 2 story factory, 4105 36 St., to P. Kretzer & Son, 52-22 Queens Blvd., Woodside. Est. **$50,000** CD 10/20—ENR 10/23.

O., Cleveland—BOILER HOUSE—E. I. DuPont de Nemours & Co., Inc., 3092 Broadway Ave., 52x59 ft., brick, steel boiler house. Owner builds. **$50,000.**

O., Columbus — PLANT — Ranco, Inc., 561 West Fifth Ave., 1 story, steel factory unit, to F. Matthaes, 427 East Dunedin Rd. **$40,000.** Awarded 10/31.

Okla., Claremore—PLANT—Cardox Chemical Co., 307 N. Michigan Blvd., Chicago, Ill., potassium perchlorate plant, to Long Constr. Co., Scarritt Bldg., Kansas City, Mo. **$250,000.** CD 9/10—ENR 9/18.

Pa., Beech Creek—PLANT—General Refractories Co., Beech Creek, refractories plant addn., 2 kilns, etc., separate contracts. **$40,000.**

Pa., Canonsburg—PLANT—Canonsburg Iron & Steel Co., A. Hopkins, plant supt., general rehabilitation manufacturing plant, separate contracts. **$200,000.**

Pa., Charleroi—FOUNDRY—Corning Glass Wks., MacBeth Evans Div., Corning, N. Y., 1 story, 20 x 50 ft., brick, steel foundry addn., separate contracts; steel sash and erection, to Independent Erection Co., Century Bldg., Pittsburgh. K. K. Knaell, Charleroi, plant mgr.

Pa., Corry—MACHINE SHOP—Ajax Iron Wks. Co., Corry, 1 story, 55x155 ft. machine shop addn., separate contracts. **$50,000.**

Pa., Danville—PLANT—American Swedo Iron Co., Danville, rehabilitation, imprvs., addns. iron and steel plant, separate contracts. **$40,000.** CD 11/3—ENR 11/6.

Pa., Franklin — PLANT — Joy Mfg. Co., Franklin, plant expansion, separate contracts. Est. over **$50,000.** CD 8/22—ENR 8/28.

Pa., Monessen—PLANT—Monessen Coke & Chemical Co., Monessen, 1 story, coke by-products and chemical mfg. plant, separate contracts. Over **$50,000.**

Pa., Phila. — GENERATING STATION — Philadelphia Electric Co., 100 Chestnut St., generating station. Owner builds. **$110,000.**

Pa., Pittsburgh—GARAGE—Braun Baking Co., 1712 Island Ave., 1 story, brick, steel, concrete garage, Westmar and Magnolia Sts., to Unkefer Bros. Constr. Co., Fulton Bldg., Est. **$40,000.**

R. I., Bristol—FACTORY UNITS—United States Rubber Co., 500 Wood St., 1 story casting bldg., 1 story, bsmnt. office and plant hospital, to Central Eng. & Constr. Co., 210 Main St., Pawtucket. Est. **$45,000.**

★**R. I., Westerly** — POWER PLANT — Narragansett Electric Co., Melrose St., Providence, design and construction power plant, Thompson's Corner, to United Engineers & Constructors, Inc., 1401 Arch St., Phila., Pa. Est. **$2,500,000.** P. D. Creer, 14 College St., Providence, consult. engr.

Tex., Alice—PLANT—La Gloria Corp., Jones Bldg., Corpus Christi, brick recycling plant exten., force account. **$100,000.**

Tex., Corpus Christi — WAREHOUSE — Corpus Christi Transfer Co., Corpus Christi, 2 story, 115x126 ft., concrete, structural clay tile warehouse, to G. W. Mitchell, 612 Builders Exch. Bldg., San Antonio. **$18,000.** Awarded 11/1. CD 9/19—ENR 9/25.

Tex., Houston—PLANT—Lone Star Cement Corp., Shell Bldg., cement plant units, 2 raw slurry tanks and compressor bldg., to Tellepsen Constr. Co., 3900 Clay St. Approx. **$40,000.**

Tex., Houston — SILOS — Trinity Portland Cement Co., 3515 Navigation St., 9 concrete silos. Owner builds. **$62,000.** Est. $70,000.

Tex., Port Isabel—REFINERY—Coastal Refineries, Inc., Port Isabel, refinery expansion, 6 steel ground tanks, plant unit, force account. **$75,000.**

Vt., Milton—POWER PLANT—Public Electric Light Co., A. W. Peterson, supt., 82 North Main St., St. Albans, 1 story, 43x80 ft., brick, steel, concrete power plant, separate contracts. **$50,000.** C. T. Main, Inc., 201 Devonshire St., Boston, Mass., engr.

Wis., Milwaukee—FACTORY—Ampco Metals, Inc., 3831 W. Burnham St., design and construction 1 story, 100x100 ft. power house, 1 story, 120x120 ft. forge shop, to W. Keierleber, 2248 N. 48 St. CD 10/8—ENR 10/16.

Wis., Milwaukee—PLANT—Johnson Box Div., Inland Container Corp., 714 E. Keefe Ave., 2 story, 30 x 50 ft. mfg. plant addn., 12 x 250 ft. loading platforms, etc., to Hunzinger Constr. Co., Sta. K, Milwaukee. L. Hunt, 152 W. Wisconsin Ave., archt.

Wis., Milwaukee — FACTORY — Owner, c/o A. W. Gross, archt., 1131 W. Keefe Ave., 2 story, 30x120 ft., concrete block, steel factory addn., to B. Mendelson, 2344 N. 45 St.

Wis., Sturgeon Bay—WAREHOUSE—Green Bay & Western Ry. Co., F. S. Halladay, ch. engr. and engr. maintenance, ways, structures, Green Bay, 2 story, bsmnt., 40x106 ft., rein.-con., brick warehouse and cold storage bldg., to Sawyer Fuel & Supply Co., Sawyer. M. A. Miller & Co., Sturgeon Bay, lessee. CD 10/21—ENR 10/23.

Wis., Wausau—WAREHOUSE — H. Phillips Co., 801 Jefferson St., 1 story, 40x116 ft., stone, brick warehouse addn., to J. P. Doheny, 918 Kickbusch St. CD 10/8—ENR 10/16.

Alta., Edmonton—FACTORY—Great Western Garment Co. Ltd., 10305 97 St., factory, to Poole Constr. Co. Ltd., 218 Tegler Bldg., Edmonton. Est. **$150,000.** CD 10/22—ENR 10/30.

N. B., Fairville—FACTORY—T. S. Simms & Co. Ltd., Fairville Rd., factory exten., to W. G. Usher, Grand Bay. **$130,000.** Est. $100,000.

N. B., Saint John—PLANT—New System Laundry & Cleaners, Ltd., 30 Lansdowne Ave., plant exten., to Acme Constr. Co., Ltd., 47 Canterbury St. East. **$40,000.** H. C. Mott, 13 Germain St., archt. CD 11/3—ENR 11/6.

Ont., Hamilton—PLANT—Hutton & Souter, archts., Pigott Bldg., 3 story, 30x100 ft., rein.-con., frame, clay tile, brick east end plant addn., for Canadian Westinghouse Co. Ltd., 288 Sanford Ave. N., to W. H. Yates Constr. Co. Ltd., 400 Wellington St. N. About **$60,000.** Bids 10/24. CD 10/21—ENR 10/23.

★**Ont., Kingston**—PLANT—Canadian Industries, Ltd., C. I. L. Hall, Montreal, Que., cellophane plant, to Anglin-Norcross Ontario, Ltd., 57 Bloor St. W., Toronto. About **$700,000.**

Ont., Port Arthur—GRAIN ELEVATOR—Sask. Pool Terminals, Ltd., Public Utilities Bldg., grain elevator exten., to Day Co. of Canada, Ltd., 133 May St. N., Fort William. **$45,000.** CD 10/31—ENR 11/6.

Ont., Sault Ste. Marie—PLANT—Chromium Mining & Smelting Co. Ltd., Hudson St., plant office bldg. and boiler room exten., concrete fdn., Queen St., to Belmont Constr. Co. Ltd., 345 Queen St. **$70,000.**

★**Ont., Toronto**—PLANT—Canadian Acme Screw & Gear Ltd., 207 Weston Rd., plant addn., to Redfern Constr. Co. Ltd., 36 Toronto St., **$640,000.** Chapman & Oxley, Sterling Tower, archts.

Ont., Weston—PLANT — Massey-Harris Co. Ltd., 915 King St. W., Toronto, 1 story, 160x480 ft., wood fabricated trusses, frame walls, steel sash plant exten., to A. W. Robertson Ltd., 57 Bloor St. W., Toronto. About **$100,000.** Allward & Gouinlock, 57 Bloor St. W., Toronto, archts.

Que., Brownsburg — PLANT — Can. Safety Fuse Co. Ltd., 1135 Beaver Hall Hill, Montreal, plant addn., to Cottingham Supply Co. Ltd., 7 Bethany St., Lachute. **$40,000.**

Que., Montreal—GARAGE—Ciba Co. Ltd., 759 Victoria Sq., altering 9 story garage, etc., to Dakin Eng. Ltd., 444 Beaumont Ave. **$200,000.** J. M. Miller, 4749 Roslyn Ave., archt. CD 9/18—ENR 9/25.

Que., Montreal — PLANT, etc. — Murphy Paint Co., Ltd., 2740 St. Patrick St., lacquer plant addn., office addn., 2740 St. Patrick St., to L. Gordon Tarlton, 912 McEachran Ave. **$45,000.** CD 10/9—ENR 10/16.

Que., St. Jerome—WAREHOUSE—Dominion Rubber Co. Ltd., warehouse addns., to R. and E. J. Ryan, Ltd., 1808 William St., Montreal. **$127,000,** incl. equip.

OFFICIAL PROPOSALS

Official notices of bids wanted on construction and related work, equipment and material for government, state, municipal departments and private enterprises

RATE: THE RATE FOR OFFICIAL PROPOSAL ADVERTISING IS 50 CENTS PER LINE (OR FRACTION) PER INSERTION
COPY RECEIVED UP TO 12 NOON MONDAY FOR ISSUE OUT THURSDAY SUBJECT TO SPACE OPEN FOR LAST-MINUTE ADS
SEND COPY TO OFFICIAL PROPOSAL DIVISION, ENGINEERING NEWS-RECORD, 330 W. 42ND ST., NEW YORK, N. Y.

Bids: November 17 (656)

General Grading

BOARD OF EDUCATION
UNION FREE SCHOOL DISTRICT NO. 1
OF THE TOWN OF MILTON,
SARATOGA COUNTY, NEW YORK

Separate sealed bids for General Grading, Water Supply and Baseball Field for Recreational and Athletic Field at Ballston Spa, New York, will be received by the Board of Education of Union Free School District No. 1, of the Town of Milton, Saratoga County, at its office located in the High School, on Malta Avenue, Ballston Spa, Saratoga County, New York, until 8:00 o'clock P.M. Eastern Standard Time, on November 17, 1941 and then at said office publicly opened and read aloud.

The information for Bidders, Form of Bid, Form of Contract, Plans and Specifications, and Forms of Bid Bond and Performance Bond may be examined at the office of the Board of Education and the office of SHEFFIELD A. ARNOLD, Landscape Architect, Room 610, 101 Park Avenue, New York, New York, and copies thereof obtained from the Landscape Architect on or after November 7, 1941 upon receipt of a properly certified check or money order payable to the Landscape Architect in the amount of Five ($5.00) dollars, same being in payment for plans and specifications.

One (1) complete set of Plans and Specifications will be sent each prospective bidder, by American Railway Express COLLECT, if requested.

The Board of Education reserves the right to waive any informalities in or to reject any or all bids, or to accept any bid which it deems for the best interest of said Union Free School district.

Each bidder must deposit with his bid security in an amount of not less than five percentum (5%) of the base bid in the form and subject to the conditions provided in the Information for Bidders.

Attention of bidders is particularly called to the requirements as to conditions of employment to be observed and minimum wage rates to be paid under the contract.

No bidder may withdraw his bid within thirty (30) days after the actual date of the opening thereof.

By order of the Board of Education.
Dated: November 3, 1941
Willard T. Jones,
Clerk

ATTORNEY: Morgan E. Welsh
36 Front St.
Ballston Spa, N. Y.

Bids: November 19 (642)

State Highway Work

STATE DEPARTMENT OF PUBLIC WORKS, DIVISION OF HIGHWAYS, ALBANY, N. Y.

Sealed proposals will be received by the undersigned at the State Office Building, 13th Floor, Albany, N. Y., until one o'clock P.M. on Wednesday, NOVEMBER 19, 1941, for the construction and reconstruction of the following highway projects:

County	Deposit for plans	Bid deposit	Type	Miles	Pref. rating
			CONSTRUCTION		
Jefferson....	$10	$13,500	24' Concrete 8" 3 span Girder, total length 414½'	0.57	A-1-J
Orange.....	20	40,000	Grading & Structures Conc. Box. Br. Two 16' spans; Girder Br. Three 105' spans; Hwy. Sep. Struct. I-Beam two 72' spans.....	3.72	A-3
			CONSTRUCTION & RECONSTRUCTION		
Orange.....	10	30,000	Var. Con. 9"; Hwy. Grade Sep. Struct. Two 53' I-Beam spans....	2.09	A-4
Orange.....	10	13,000	24' Conc. 8-7-8 Rigid Frame Br. 36½' & 35½' spans.	1.01	A-1-J

Maps, plans, specifications, and estimates may be obtained at the office of the Division of Highways, Albany, N. Y., and at the office of the District Engineers in whose districts the roads are located. The addresses of the District Engineers and the counties will be furnished upon request. Plans may be seen at the office of the State Department of Public Works, State Office Building, Worth and Center Streets, New York City.

The deposit for Plans and Proposal Forms for each contract containing 1 to 15 sheets is $5.00; 16 to 30 sheets, $10.00; over 30 sheets, $20.00. A refund will be made in full to bidders for return of one set, in good condition, within 30 days of award, or rejection of bids; refund for all other sets in good condition, similar period, will be 50% of deposit.

Special attention of bidders is called to "General Information for Bidders" in the proposal, specifications, and contract agreement, and to the special provisions applying to projects financed with federal funds.

Proposal for each contract must be submitted in a separate sealed envelope with the name and number of the contract plainly endorsed on the outside of the envelope. Each proposal must be accompanied by cash, draft or certified check payable to the order of "State of New York, Division of the Treasury" for the sum as specified in the advertisement and the proposal. The retention and disposal of the bidding check, the execution of the contract and bonds shall conform to the provisions of the Highway Law, as set forth in "Instructions to Bidders."

When optional types are permitted on contracts with federal funds, bidders must state in the space provided in the proposal the exact designation of the optional type upon which the proposal is predicated.

Minimum Wage Rate per hour for above work shall be as follows:

County	Skilled Labor	Intermediate Grade Labor	Unskilled Labor
Jefferson.....	$.75	$.55	$.55
Orange.....	.75	.65	.60

UNLESS SHOWN OTHERWISE IN THE ITEMIZED PROPOSAL FOR EACH PROJECT.

The right is reserved to reject any or all bids.

A. W. BRANDT,
SUPT. OF PUBLIC WORKS.

Bids: November 24 (664)

Waterway Improvements

STATE OF NEW JERSEY
BOARD OF COMMERCE AND NAVIGATION
STATE HOUSE
TRENTON, NEW JERSEY

Sealed bids will be received separately for each of the following projects at the office of the Board of Commerce and Navigation, State House, Trenton, New Jersey, at 11:30 A.M., Monday, November 24, 1941, and then publicly opened and read aloud.

PROJECT NO. 162:

For the construction of creosoted timber bulkhead and repair of jetty in Shark River in the Borough of Avon, County of Monmouth, New Jersey.

The amount of funds estimated at this date as available to finance this project is $60,000.00.

PROJECT NO. 163:

For the construction of creosoted timber bulkhead and appurtenances in Bayhead-Manasquan Canal, Borough of Point Pleasant, Ocean County, New Jersey.

The amount of funds estimated at this date as available to finance this project is $45,000.00.

PROJECT NO. 164:

For the dredging of the Inland Waterway Channel and/or anchorage basin in the Manasquan River, vicinity of Cook's Creek and Will's Hole Thorofare, Borough of Point Pleasant Beach, Ocean County, New Jersey.

The amount of funds estimated at this date as available to finance this project is $28,000.00.

PROJECT NO. 165:

For the dredging of the Inland Waterway Channel in two sections: Section No. 1 in Little Bay, from Main Marsh Thorofare to Black Point; Section No. 2 in Reed Bay, from Meadow Cut to Flat Thorofare, in Galloway Township, Atlantic County, New Jersey.

The amount of funds estimated at this date as available to finance this project is $55,250.00.

PROJECT NO. 166:

For the dredging of the Inland Waterway Channel and/or anchorage basin in Clam Creek from the foot of Delaware Avenue to the foot of Massachusetts Avenue, City of Atlantic City, County of Atlantic, New Jersey.

The amount of funds estimated at this date as available to finance this project is $60,000.00.

PROJECT NO. 167:

For the dredging of the Inland Waterway Channel and removal of shoal areas in Broad Thorofare, vicinity of Longport, Atlantic County, New Jersey.

The amount of funds estimated at this date as available to finance this project is $37,250.00.

PROJECT NO. 171:

For rebuilding existing stone and steel core-wall jetty by stone placement in Atlantic Ocean, at East End Avenue, Borough of Avon-by-the-Sea, Monmouth County, New Jersey.

The amount of funds estimated at this date as available to finance this project is $27,200.00.

PROJECT NO. 172:

For Class No. 1: The rebuilding and extension of existing steel core and stone fill jetty by stone placement; and Class No. 2: Optional construction of a timber fishing pier in the Atlantic Ocean near the end of Eighth Avenue in the Borough of Belmar, Monmouth County, New Jersey.

The amount of funds estimated at this date as available to finance this project is $36,500.00 for Class No. 1 (Jetty), and $15,000.00 for Class No. 2 (Fishing Pier).

Plans and specifications may be viewed at the office of the Board of Commerce and Navigation at No. 1060 Broad Street, Newark, New Jersey, or in the State House, Trenton, New Jersey, or will be furnished persons upon request at the Newark Office.

No proposal will be considered unless accompanied by cash or a certified check made payable to the Board of Commerce and Navigation of New Jersey in the amount of 5% of the total amount bid for the project. The bid deposits received with the three lowest bids may be held for forty-five (45) days after the opening of bids or until forty-eight (48) hours after the accepted bidder has executed the contract and filed the required performance surety bond. All other bid deposits will be returned within three days after the opening of bids.

The accepted bidder will be required to furnish a performance bond in the amount of the contract in accordance with Section 2:60–207 to 2:60–212 inclusive, Revised Statutes, and with sureties satisfactory to the State of New Jersey.

The Board of Commerce and Navigation reserves the right to waive any informalities in or to reject any or all bids.

FRANK D. HOLMES
Director and Secretary

November 7, 1941